

# Resource review

Haynes RB, Sackett DL, Guyatt GH, et al. *Clinical epidemiology: how to do clinical practice research*. 3<sup>rd</sup> edition. Philadelphia, PA: Lippincott Williams & Wilkins, 2006.



*Clinical epidemiology: how to do clinical practice research* includes a CD-ROM and is available at [www.lww.com](http://www.lww.com) for US \$49.95.

When I opened this book, the first thing I noticed was the very few similarities between this and the previous edition. The authors are the same (although their order has changed), the evidence “cube” is still on the front cover, and the title is still *Clinical epidemiology*. However, the subtitle gives the clue to the major change: from *A basic science for clinical medicine* to *How to do clinical practice research*. This book couldn’t be any more different from the previous edition; gone are the statistics (as it states, “this book isn’t about biostatistics,” and the authors “apologize” for the oversimplification in terms of the numbers) and gone is the use of clinical research in clinical practice (this “how to use” research is the domain of the several good evidence-based medicine [EBM] books around).

So what is this book about? This new edition is now clearly focused in how to do clinical practice. It is aimed at investigators at any stage of their career, “from beginning students to seasoned investigators,” and is a culmination of the authors’ experiences in undertaking clinical research over the last 40–50 years. Based on longevity, the award would go to Dave Sackett, who became an internist in 1961. What is apparent throughout this book is the enthusiasm the authors have for clinical research. Moreover, as they state, they jumped at the chance to get back together to produce a practical book on how to generate the E used in “EBM.”

The book is split into 2 sections; the first is about performing clinical research and includes the above sections as well as chapters on finding information about the burden of disease, testing quality improvement interventions, evaluating diagnostic tests, prognosis, causation, and generating outcome measures, especially for quality of life.

In the preface you are instructed to not read this book like a novel, but rather to dip into the chapters as required. I ignored this advice and it was well worth it! So how would I use this book once I have read it? Firstly, I would advise anyone undertaking a systematic review (SR) for the first time to view the chapter by Brian Haynes as compulsory reading. He makes an excellent case for the credit deserved in performing SRs. As done for all the chapters in the book, you are given a checklist for performing a particular piece of research, and the chapter guides you from the asking of your question through to planning your budget—although obtaining funding for SRs seems to be pretty near impossible. The appendix to this chapter provides handy search strategies, sample instructions for reviewing citations, and a sample review data abstraction form. I would have put this chapter on my wish list when performing my first SR. So at the expense of repeating myself, read this chapter now if you are undertaking your first systematic review!

At 184 pages, chapter 4—an introduction to performing therapeutic trials—is the longest chapter in the book and is crammed with information for those considering undertaking a trial. It opens with the tactics to start your trial and uses sample scenarios and studies that Dave Sackett has been involved in. Again, useful checklists are provided throughout: the checklist for participants has 11 steps, and each step is explained in detail. This chapter is crammed full of information for those undertaking randomised controlled trials (RCTs); for instance, did you know that 12 possible strategies exist for increasing patient participation in trials and that casting lots by the roll of a dice to create comparable groups, thus to avoid confounding, has been in existence for centuries? Also covered in this section are ethical issues, an approach to writing up your RCT for publication, large trials, small trials, and non-drug trials. Actually, there are some statistics in this book, and apparently there is only one formula you’ll ever need. It looks like this:

$$\text{Confidence} = (\text{signal/noise}) \times \sqrt{\text{sample size}}$$

The second (and shorter) section is about becoming a clinical researcher, which provides an equally fascinating read. The first chapter on becoming a successful clinical investigator suggests there are 3 determinants of academic success: these are mentoring, creating periodic lists, and time management. I found the section by Gordon Guyatt on preparing a research protocol to improve its success useful; however, this is the one chapter—at only 11 pages—where I wanted a bit more. This probably reflects the time and effort required to get any of my protocols anywhere near worth funding.

The chapter on preparing reports for publication cheered me up about my own writing. How? By Brian Haynes clarifying that he commits to editing and re-editing his own writing several times. In fact, he states that 7 people reviewed his chapter on preparing reports. He gives useful rules for writing: for instance, to achieve clarity keep your paragraphs down to 5 sentences or less; therefore, no more full stops in this paragraph keeps to the rule!

For current researchers and those considering research, this book is a thoroughly good read and worth keeping on

your shelf. For those looking for how epidemiology affects clinical practice, you still can't go far wrong with the 2<sup>nd</sup> edition of this book.

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#### RATINGS

Quality of information ★★★★★

Research usefulness ★★★★★

## EBM notebook

### Correction

**E**rrata: Our apologies, but we gave the wrong reference to the Women's Health Initiative in the June notebook "Why fair tests are needed: a brief history". It should have been the combined hormone study rather than oestrogen alone—that is,

Rossouw JE, Anderson GL, Prentice RL, *et al* for the Writing Group for the Women's Health Initiative Investigators. Risks and benefits of estrogen plus progestin

in healthy postmenopausal women: principal results From the Women's Health Initiative randomized controlled trial. *JAMA* 2002; **288**:321–33.

instead of "Women's Health Initiative Steering Committee. Effects of conjugated equine estrogen in postmenopausal women with hysterectomy: the Women's Health Initiative randomized controlled trial. *JAMA* 2004;**291**: 1701–12."