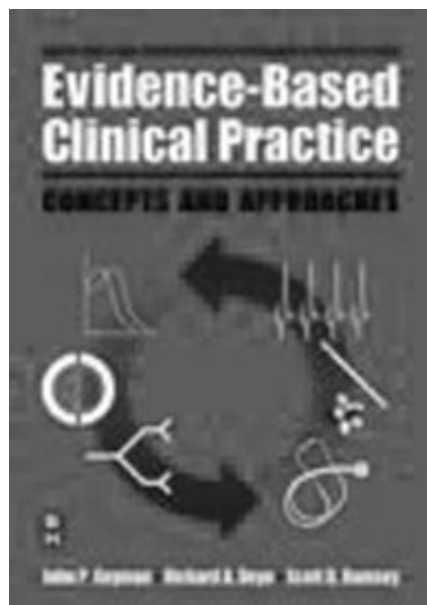


## Resource corner

Geyman JP, Deyo RA, Ramsey SD. *Evidence-Based Clinical Practice*. Woburn, MA: Butterworth-Heinemann, 1999.



Although Geyman *et al* state that their intended audience consists of primary care physicians, many of the clinical situations discussed in this book are also relevant to general internal medicine consultants. This reflects well on the authors' ability to select clinical situations that are common enough to pertain to a wide variety of clinicians. This book aims to increase the reader's understanding of developments in the field of evidence-based medicine and to facilitate a greater role for evidence-based medicine in education and clinical practice.

The book covers ground that has become traditional for books about evidence-based medicine. Topics include how to find evidence and how to critically appraise the types of studies most often encountered (including diagnostic tests, therapeutics, meta-analyses, practice guidelines, decision analyses, and economic evaluations). These discussions are based on clinical scenarios and include checklists that would be familiar to those who have read the Users' Guides series published in *JAMA*.<sup>1</sup> Additional topics include an excellent chapter exposing some common medical myths that show clearly that we are not already practising evidence-based medicine, a chapter about understanding patients' choices, and chapters about the day to day practice of evidence-based medicine. The chapter about patient decision making is of major importance because incorporation of patient preferences is an integral part of evidence-based practice.

This book is easier to navigate than the 1st edition of *Evidence-Based Medicine: How to Practice and Teach EBM*.<sup>2</sup> The 2nd edition of *Evidence-Based Medicine*,<sup>3</sup> however, surpasses the 1st, and I would recommend it over *Evidence-Based Clinical Practice* to those people who want a book about critical appraisal or teaching evidence-based medicine. I used both books recently while facilitating a 1 week evidence-based practice course with a multidisciplinary group of participants. All of the questions about evidence-based practice generated by the group were answered by both books. The main area where Geyman *et al's* book was found to be more useful was in the chapters on how to use evidence-based medicine on a daily basis.

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- 1 Oxman AD, Sackett DL, Guyatt GH. Users' guides to the medical literature. I. How to get started. *JAMA* 1993;**270**:2093-5.
- 2 Sackett DL, Richardson WS, Rosenberg W, *et al*. *Evidence-based medicine: how to practice and teach EBM*. Edinburgh: Churchill Livingstone, 1997.
- 3 Sackett DL, Straus S, Richardson WS, *et al*. *Evidence-based medicine: how to practice and teach EBM*. 2nd edition. Edinburgh: Churchill Livingstone, 2000.

### Ratings

Methods/Quality of information: ★★★☆☆

Clinical usefulness: ★★☆☆☆

*Evidence-Based Clinical Practice* can be purchased online at <http://www.bhusa.com/medical/us/> for US \$37.50.



This resource review evaluates the “clinical queries” function of PubMed, a component of the Medline search interface developed by the National Center for Biotechnology Information, a division of the National Library of Medicine (NLM). PubMed is a free, web based, public Medline search interface developed in cooperation with biomedical literature publishers to facilitate access to literature citations and linkages to full text journals at the web sites of participating publishers. This review considered the following clinical scenario:

*A 62 year old man presents for routine follow up of hypogonadism. After an attempt at transdermal patch treatment resulted in excessive skin irritation, he has been receiving periodic testosterone enanthate injections. He recently heard about a testosterone gel preparation that would be more convenient for him, and wonders if it would be an effective alternative. You conduct a quick search to find information from well designed studies.*

One benefit of PubMed is its ability to yield productive searches without requiring familiarity with the Medical Subject Heading (MeSH) vocabulary that is the basis of Medline citation indexing. The clinical queries function extends this benefit by filtering retrieval to a smaller subset of methodologically sound studies meeting evidence-based standards in 4 categories relevant to adult general medicine: treatment, diagnosis, aetiology, and prognosis. The search filters are largely based on the work of Haynes *et al.*,<sup>1</sup> in which various combinations of text words and MeSH terms are combined to optimise retrieval of methodologically sound clinical studies. Balancing the number and relevance of citations across a wide variety of clinical topics is accomplished by allowing searches that are more sensitive (more relevant citations but more that are less relevant) or more specific (fewer retrieved citations, but more likely to be relevant). The operating characteristics of these search filters are available at the PubMed web site (<http://www.ncbi.nlm.nih.gov/entrez/query/static/clinicaltable.html>).

For the scenario above, the clinical queries function was used to search using the term “testosterone gel,” and selecting “therapy” and “specificity.” 5 citations were retrieved, the first a relevant randomised controlled trial (RCT) showing improved sexual function, mood, muscle strength, and body composition values in hypogonadal men treated with transdermal testosterone gel. No link to full text was available from the publisher. 3 of the citations dealt with studies in women, and 1 in boys. Use of the “related articles” button for the first citation revealed 101 additional citations; several appearing on the first screen also represented relevant RCTs. When the search was repeated with an emphasis on “sensitivity,” 31 citations were obtained, with additional relevant citations but also others dealing with less relevant issues including basic mechanisms, pharmacokinetics, specific patient populations, animal studies, and in vitro effects.

The clinical queries feature of PubMed is a useful resource for rapidly filtering and displaying methodologically sound and clinically relevant citations on treatment, diagnosis, aetiology, and prognosis from the Medline database. It has considerable utility for busy clinicians needing rapid access to original study data to support clinical decisions. Among its limitations are the incomplete access to full text articles and the lack of a critical appraisal component for selected citations.

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1 Haynes RB, Wilczynski N, McKibbon KA, *et al.* Developing optimal search strategies for detecting clinically sound studies in MEDLINE. *J Am Med Inform Assoc* 1994;1:447–58.

### Ratings for this resource

Methods/Quality of information: ★★★★★

Clinical usefulness:★★★★☆

### Editor’s note

The research staff at McMaster University in Canada has undertaken a study funded by the NLM to update and expand on the methodological search filters found in the clinical queries function of PubMed. Search filters will be developed and validated for a greater number of purpose categories, including treatment/quality improvement, diagnosis, prognosis, aetiology, clinical prediction guides, economics, and qualitative studies (7 v 4 categories in the previous study); and by handsearching a larger journal set to establish the gold standard (172 v 10 journal titles in the previous study). Handsearching of the 172 journal titles is underway. Aside from Medline, methodological search filters will be developed for EMBASE/Excerpta Medica, PsycLIT, and CINAHL. Look for the results of this endeavour in the latter part of 2001.

PubMed clinical queries, a web tool for filtered retrieval of citations relevant to evidence-based practice, can be accessed on [www.ncbi.nlm.nih.gov/entrez/query/static/clinical.htm](http://www.ncbi.nlm.nih.gov/entrez/query/static/clinical.htm)