

A user-friendly website enabling evidence-based practice in primary care

Evidence Based Medicine Toolkit website <http://www.ebm.med.ualberta.ca/ebm.html>

This Canadian website provides a collection of tools to help primary care clinicians identify, evaluate, and apply relevant evidence for better health care decision-making. While the content is designed for use in the field of medicine, there is plenty on this website that is relevant to physiotherapy practice, particularly in countries where physiotherapists are primary care practitioners, such as Australia and England.

The need for a resource such as this EBM Toolkit arises from the exponential increase of internet-based clinical information that has occurred in recent decades. While it would be wonderful if all such information were valid and reliable, it is widely recognised that the majority is not. The consequences of using biased evidence for clinical decision-making are serious: at best we make no difference to our patient's health, but at worst we can cause harm. Therefore, to maintain the highest standards of care and professionalism, it is essential that physiotherapists can locate, appraise, and apply high quality evidence in clinical practice. However, going through each of these steps to inform evidence-based practice can be time consuming and the primary barrier for physiotherapists is lack of time (Jette et al 2003). Therefore, well-designed websites such as the EBM Toolkit are invaluable because they enable clinicians to find answers based on high quality evidence quickly.

The EBM Toolkit website consists of the following sections: *About EBM, Domains, Practice Guidelines, Systematic Reviews, Economic Analysis, Glossaries, JAMA Users Guide* and *Links*. The most useful parts of the site for physiotherapists are *Domains, Practice Guidelines* and *Systematic Reviews*. All appraisal tools on the site have been adapted from the Users' Guides series prepared by the Evidence Based Medicine Working Group and originally published in JAMA.

The *Domains* section is sub-divided into therapy, diagnosis, prognosis, and harm. In each, there is a brief guide to appraise the validity and applicability of an individual research study ('appraisal guide'). This guide serves as a useful reminder of the key criteria to evaluate how believable a study is, or to work out the size of a treatment effect, for example. My only gripe about this section is that only outcomes related to dichotomous measures (for example, re-injured or not re-injured) are considered, whereas physiotherapists are often interested in continuous outcomes (for example, pain on a 0–10 visual analogue scale) as well. Next, there is a 'search strategies' section, which logically would be better placed before the appraisal guide. Nonetheless, the step-by-step guide on searching specific databases and selecting and combining search terms is useful and specific to each domain. The third feature within each domain is a 'worksheet' which is an excellent template (downloadable as a word or pdf document) for summarising the evidence. Such structured, concise summaries would be a valuable

resource to share with colleagues during journal clubs or to facilitate implementation of evidence-based practice amongst colleagues in a clinic or hospital department. From my experience, these worksheets are more user-friendly than the EBM tool CATmaker (CAT = Critically Appraised Topic) that are available on the University of Oxford Centre For Evidence Based Medicine website (<http://www.cebm.net/index.aspx?o=1157>). Finally, each domain has relevant tools to assist with calculations (eg, likelihood ratios for diagnosis), including a link to the online (Canadian) CEBM Statistics Calculator.

The *Practice Guidelines* and the *Systematic Reviews* sections have a similar structure to the *Domains* section, including appraisal guides, search strategies and worksheets. The information on how to find good quality practice guidelines is particularly good and has links to excellent sites such as The National Guideline Clearing House and Clinical Knowledge Summaries (although the hyperlink to a third site 'CMA Infobase' was not functional at the time of this review but can be found at: <http://www.cma.ca/cpgs/>). The *Systematic Reviews* section would benefit from some small improvements. First, the appraisal guide has an item asking 'was the validity of the included studies appraised' which links to a generic definition in the Glossary about the definition of validity. Because the methodological quality of studies included in a systematic review can have a substantial impact on estimates of treatment effect, careful appraisal of the risk of bias (also referred to as the quality or internal validity) of studies is important. Therefore it would be more fitting with contemporary terminology to ask 'was the risk of bias of the included studies appraised' and more useful to have a link to a brief summary of currently accepted tools for this purpose. Second, it would be useful to broaden the 'what are the results' section, to include continuous outcomes for reviews on treatments, and to add appropriate outcomes for reviews of diagnosis (eg, likelihood ratios)

The final two sections of the EBM Toolkit include links to other excellent web-based EBM resources as well as a useful glossary of terms for reference.

Overall, this is a user-friendly resource that provides tools and strategies for formulating clinical questions, searching and critically appraising the evidence, and applying the evidence to patients. I recommend it to physiotherapy students and practitioners.

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Reference

Jette DU et al (2003) *Phys Ther* 83: 786–805.