

Scott Memorial Library QuickView: Introduction to Evidence-Based Medicine

"...the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients"

(Evidence-based medicine: what it is and what it isn't. BMJ 1996;312: 71-72)

MEDICAL SUBJECT HEADINGS – SCOPE NOTE

Evidence-Based Medicine

The process of systematically finding, appraising, and using contemporaneous research findings as the basis for clinical decisions. Evidence-based medicine asks questions, finds and appraises the relevant data, and harnesses that information for everyday clinical practice.

Evidence-based medicine follows four steps: formulate a clear clinical question from a patient's problem; search the literature for relevant clinical articles; evaluate (critically appraise) the evidence for its validity and usefulness; implement useful findings in clinical practice. The term "Evidence-Based medicine" (no hyphen) was coined at McMaster Medical School in Canada in the 1980's to label this clinical learning strategy, which people at the school had been developing for over a decade. (From BMJ 1995;310:1122)

EBM RESOURCES ON THE WEB:

- Glossary of EBM Terms:
<http://ktclearinghouse.ca/cebm/glossary>
- SUNY Downstate Medical Center EBM Course:
<http://library.downstate.edu/EBM2/contents.htm>
- Users' Guides to Evidence-Based Practice (Centre for Health Evidence)
<http://www.jamaevidence.com>
- McMaster University Health Information Research Unit
<http://hiru.mcmaster.ca/>
- AHRQ – Evidence-Based Practice
<http://www.ahrq.gov/clinic/epcix.htm>

EBM Literature -- Four Categories:

Therapy research:	Reports on the comparison of treatments for a particular condition. An example might be the comparison of the effectiveness of one drug to treat a particular illness with the effectiveness of another drug to treat the same illness. It represents the largest volume of EBM literature.
Diagnosis research:	Measures the reliability of a particular diagnostic measure for a disease against the "gold standard" diagnostic measure for the same disease. Here the sensitivity and specificity of the measures are compared.
Etiology research:	Compares a group exposed to a particular agent with an unexposed group. This literature is important for understanding the prevention and control of disease. There is less of this research because it presents some difficult ethical and logistical problems.
Prognosis research:	Follows the progression of a group with a particular disease and compares it with the progression of a similar group without the particular disease. It is important to make the groups as similar as possible and to have followed up with more than 80 percent of each group. There is limited prognosis literature.

Challenges to EBM:

Finding "current best evidence" may be difficult due to:

- Plethora of published medical literature
- Varying quality of published medical literature
- Poor searching skills

Limits to EBM:

EBM literature provides the clinician with a tool to make health care decisions based on sound data developed from comparative studies. It does not replace expert judgment or clinical experience, but should be used to enhance that judgment and experience.

Evidence-Based Medicine Databases for Jeffersonians: EBM Reviews in Cochrane Library

The following EBM resources are included in the Cochrane Library, which is available to TJU students, faculty, staff, and member subscribers. Access to Cochrane requires a Campus Key and password.

The Cochrane Database of Systematic Reviews (CDSR)

- Full text database of original reviews produced and updated regularly by the **Cochrane Collaboration**, an international organization created for the purpose preparing, maintaining and promoting the accessibility of systematic reviews of the effects of healthcare interventions.
- Reviews are prepared by approximately 50 Collaborative Review Groups, consisting of researchers, healthcare professionals and health consumers.
- Database includes **Complete Reviews and Protocols** (background, objectives and methods of reviews that are in progress).

Cochrane Central Register of Controlled Trials (CCTR)

- Bibliographic database of definitive clinical trials selected from the medical literature by members of the Cochrane Collaboration. Of the over 300,000 health care trials included in CCTR, only 69% are drawn from MEDLINE or Embase.
- Unique citations include nonstandard reports of unpublished studies and reports from conferences.
- Database also includes studies dating back to 1898, while MEDLINE only covers publications since 1966.
- Formerly known as Cochrane Controlled Trials Register.

Cochrane Methodology Register

- Bibliography of publications that report on methods used in the conduct of controlled trials.
- Includes journal articles, books, and conference proceedings, and the content is sourced from MEDLINE and hand searches.
- Consists of the journal ACP Journal Club, a publication of the American College of Physicians-American Society for Internal Medicine (ACP-ASIM), along with back issues of Evidence-Based Medicine, a joint publication with the British Medical Journal Group. (These journals merged in 2000.)
- Contains the title of the article, information on where it was published (bibliographic details), and, in some cases, a summary of the article. Does not contain the full text of the article.

Health Technology Assessment Database

- Brings together details of completed and ongoing health technology assessments (studies of the medical, social, ethical, and economic implications of healthcare interventions) from around the world. The aim of the HTA Database is to improve the quality and cost-effectiveness of health care.
- Produced by the Centre for Reviews and Dissemination (CRD) at the University of York, UK, using information obtained from members of International Network of Agencies for Health Technology Assessment (INAHTA) and other health technology assessment organizations.

NHS Economic Evaluation Database

As healthcare resources are finite, information about both costs and effects are essential to making evidence-based decisions about competing healthcare interventions. But information about cost-effectiveness can be difficult to identify, appraise and interpret.

- Assists decision-makers by systematically identifying economic evaluations from around the world, appraising their quality, and highlighting their relative strengths and weaknesses.
- NHS EED is produced by the Centre for Reviews and Dissemination (CRD) at the University of York, UK.

Database of Abstracts of Reviews of Effectiveness (DARE)

- Full text database featuring critical assessments of systematic reviews from a variety of medical journals, including the Cochrane Database of Systematic Reviews and ACP Journal Club.
- Produced by National Health Services' Centre for Reviews and Dissemination (NHS CRD) at the University of York, England.

FOR MORE INFORMATION ABOUT THE COCHRANE LIBRARY:

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