

Understanding Evidence-Based Practice

A Guide by A.F. Parlow Library at Harbor-UCLA Medical Center

Defining Evidence-Based Practice (EBP)

“[Evidence-based practice (also known as evidence-based medicine)] is the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients.”¹

In other words:

Clinical Expertise + Relevant Evidence-Based Literature
+ Patient Values = Evidence-Based Practice

1. Sackett, D L et al. “Evidence based medicine: what it is and what it isn't.” *BMJ (Clinical research ed.)* vol. 312,7023 (1996): 71-2. doi:10.1136/bmj.312.7023.71

5 Steps of EBP

1. ASK

- a. Create a focused, clinical question that can be answered using PICO (*see PICO slide*).

2. SEARCH

- a. Develop search terms from your new clinical question and determine what your search strategy will be.
 - i. Prepare to use both simple and subject (Medical Subject Headings aka MeSH) search terms.
 - ii. Determine your search parameters (e.g. publication date, article type, species, etc.)
- b. Locate the best evidence available to answer your clinical question. Use authoritative, peer-reviewed materials.
 - i. Databases available through Parlow Library include PubMed, ClinicalKey, Cochrane Library, and CINAHL.

5 Steps of EBPContinued

3. APPRAISE

- a. Critically appraise evidence to test for relevance, validity, credibility, applicability.
 - i. Quality of evidence varies within biomedical literature. Choose appropriately.
 - ii. Assess literature for risk of bias.

4. APPLY

- b. Combine clinical expertise and patient values to apply your results to your practice.

5. EVALUATE

- c. Assess whether or not evidence-based decision was effective when applied clinically.

PICO

Defining PICO

PICO is used to formulate your clinical question *before* starting your research. It has 4 parts and stands for:

Patient or Population

Intervention or treatment

Comparison (between treatments)

Outcome

PICO Process

For a look at sample clinical questions and how to produce terms for your search using PICO, click [this link.](#)

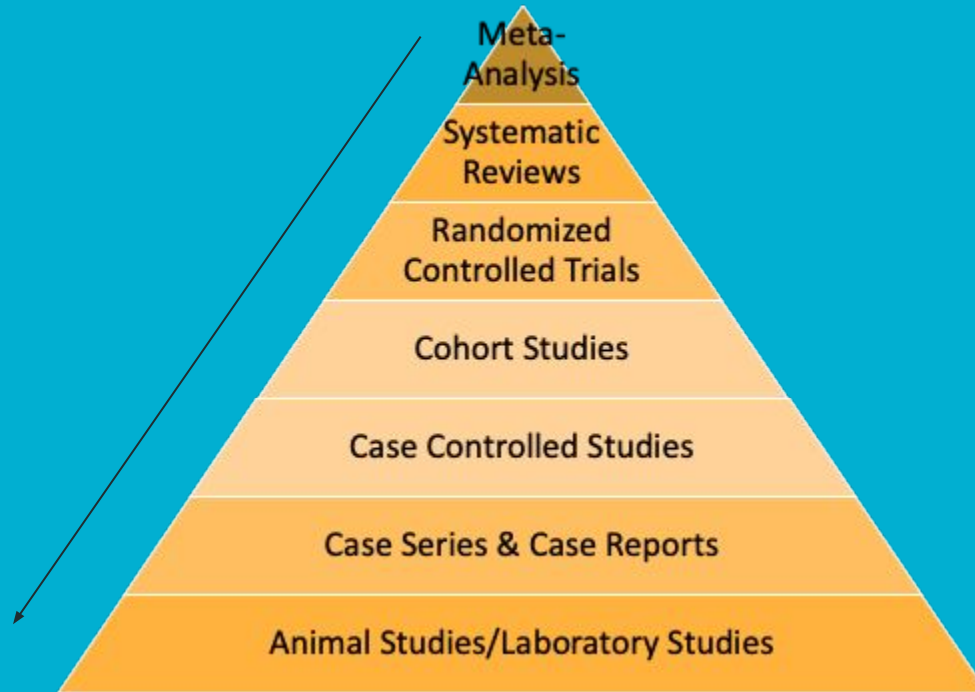
Levels of Evidence

Quality & Type Matter

- When appraising your literature, you must take the quality of the evidence into consideration.
- Knowing what each type of study (e.g. case reports, meta-analyses, etc.) entails will help you choose the best literature to support your evidence-based practice.

Identifying Levels of Evidence

Start from the top of the pyramid when searching the literature. If you cannot find evidence within a level, work down to the next highest level.



Dahlgreen Memorial Library (2021).
Evidence-based Medicine Resource Guide.
Retrieved from:
<https://guides.dml.georgetown.edu/ebm/ebmclinicalquestions>

Study Type	Definition
Meta-Analysis	A statistical technique that summarizes the results of several studies in a single weighted estimate, in which more weight is given to results of studies with more events and sometimes to studies of higher quality.
Systematic Reviews	A review in which specified and appropriate methods have been used to identify, appraise, and summaries studies addressing a defined question. It can, but need not, involve meta-analysis).
Randomized Controlled Trials	A trial in which participants are randomly assigned to two or more groups: at least one (the experimental group) receiving an intervention that is being tested and another (the comparison or control group) receiving an alternative treatment or placebo. This design allows an assessment of the relative effects of interventions.

Taken from: [BMJ's Glossary of EBM Terms](#)

Study Type	Definition
Cohort Studies	A trial in which participants are randomly assigned to two or more groups: at least one (the experimental group) receiving an intervention that is being tested and another (the comparison or control group) receiving an alternative treatment or placebo. This design allows an assessment of the relative effects of interventions.
Case Control Studies	A trial in which participants are randomly assigned to two or more groups: at least one (the experimental group) receiving an intervention that is being tested and another (the comparison or control group) receiving an alternative treatment or placebo. This design allows an assessment of the relative effects of interventions.
Case Series & Case Reports	Analysis of a series of people with the disease (there is no comparison group in case series). Case series provide weaker evidence than case-control studies.

Taken from: [BMJ's Glossary of EBM Terms](#)

EBP Resources

Databases

- [Cochrane Database of Systematic Reviews](#) (on campus access only)
- [PubMed Clinical Queries](#)
- [ClinicalKey](#)
- [PubMed](#)
- [TRIP Medical Database](#)

eBooks

- [Evidence-Based Cardiology - Steinburg & Cannon](#)
- [Evidence-Based Practice of Critical Care - Deutschman](#)
- [Evidence-Based Dermatology - Williams](#)
- [Evidence-Based Emergency Medicine - Lang & Rowe](#)
- [Evidence-Based Practice of Anesthesiology - Fleisher](#)
- [Surgery: Evidence-Based Practice - Cohn & Brower](#)

Guides & Tools

- [Parlow Library's Systematic Review Research Guide](#)
- [Health Services/Technology Assessment Texts \(HSTAT\) - National Library of Medicine](#)
- [Critical Appraisal Worksheets - Centre for Evidence-Based Medicine](#)
- [Agency for Healthcare Research and Quality - Evidence-Based Decision making](#)
- [Evidence Based Medicine Toolkit - University of Alberta](#)
- [National Information Center on Health Services Research & Health Care Technology \(NICHSR\)](#)

EBP Tutorials from Other Libraries

- [Duke University's Intro to EBP Tutorial](#) (*Highly Recommend*)
- [Alaska Medical Library's Evidence-Based Practice LibGuide](#)
- [University of Minnesota Libraries' EBP Tutorial](#)
- [Dartmouth Library's EBP LibGuide](#)

Contact Us

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