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PubMed® for Librarians - Evidence Based Searching in PubMed Practice Exercises and Links

1. Evidence based medicine is the **C**_____, **E**_____ and **J**_____ use of the current best evidence in making decisions about the care of individual patients.

Suggested Reading: Sakett DL, "Evidence Based medicine: what it is and what it isn't" 1996, PMID 8555924

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2349778/>

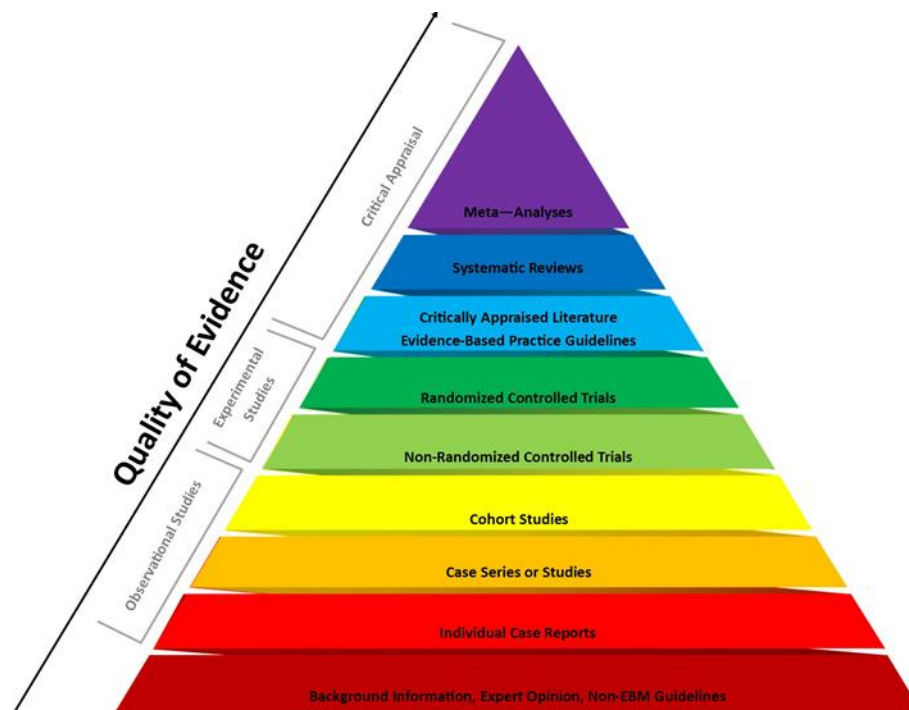


Figure 1: the EBM pyramid from <https://libguides.cmich.edu/cmed/ebm/pyramid>

2. Two main branches in MeSH that describe study design:

a. _____ **Techniques**

b. **Study** _____

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3. Randomized Controlled trial is the **G**_____ **S**_____ of medical research because it is the best design to reduce the chances of bias and control for the effect of the treatment.

NLM Indexers use the MESH term “Randomized Controlled Trial” in conjunction with a specific clinical trial phase to describe a research trials in PubMed.
RCT is also a **PubMed Filter - Publication Type**

5 things to know about MeSH & EBM

1. *Publication Type & Investigative Techniques*
 2. *Clinical Trial vs. Observational Study*
 3. *Randomized Controlled Trial (RCT)*
 4. *Publication Type vs. “as Topic”*
 5. *Double-blind method (1977) and Random allocation (1978)*
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4. Exercise 1: Sleep Apnea

Construct a PubMed search to compare treatments for sleep apnea.

TIP: Use the MeSH Database and explore the Study Characteristics branch

PubMed: <https://www.ncbi.nlm.nih.gov/pubmed/>



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5. PubMed Clinical Queries categories

- a) Clinical Study Category – automatically uses the **V**_____ so you don't have to know it yourself
- b) Systematic Reviews – a Systematic Review is not a **P**_____ **T**_____; it is a whole search string/subset.
- c) Medical Genetics (explore on your own)

6. Comparative Effectiveness Research includes **O**_____ studies.

Clinical Queries do NOT include **O**_____ studies.

7. PubMed Health includes summaries of best evidence and best practices for the **P**_____ and **T**_____ of health conditions.

4 Takeaways – EBM Tools

1. Clinical Queries

2. Systematic Review [sb]

3. Comparative Effectiveness Research

4. PubMed Health



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LEARN MORE:

Introduction to Evidence-Based Practice (Duke) tutorial:

<http://guides.mclibrary.duke.edu/ebmtutorial>

Systematic Review Workshop: The Nuts and Bolts for Librarians (Univ. Pittsburg):

<http://www.hsls.pitt.edu/systematicreview/>

Dr. John P. Ioannidis profile in The Atlantic (or search PubMed for Ioannidis JP)

<http://www.theatlantic.com/magazine/archive/2010/11/lies-damned-lies-and-medical-science/8269/>

Ben Goldacre – Battling Bad Science Ted Talk

http://www.ted.com/talks/ben_goldacre_battling_bad_science

BONUS LINKS:

David Sackett obituary (The Lancet, 2016):

[http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(15\)61094-7/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(15)61094-7/fulltext)

PubMed Publication Characteristics (Publication Types) - with Scope Notes

<https://www.nlm.nih.gov/mesh/pubtypes.html>

NICHSR ONEsearch - Search all the NICHSR databases and web portals (HSRProj, HSRR, HSRIC and PHPartners) with one simple search:

<https://www.nlm.nih.gov/nichsr/onesearch.html>

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