

Theme: Basic concepts

Beside each educational activity you will see to which EBM step it refers (ASK, ACQUIRE, APPRAISE, APPLY) and the goal intended, either, increase knowledge, influence attitudes or work some specific skills

Objectives: At the end of the session participants will be able to

- give the definition of EBM
- explain the steps of EBM
- identify different study types

Before the course: listen to 4 short videos (a-b-c-d).

Option: Listening to the videos with the students.

Duration: 1h00

Group size: 8-24 medical students or residents (or from other health professions)

Structure of the course

GENERAL KNOWLEDGE (knowledge): Definition of EBM

Activity no 1: starting from the student's reflection from the 1st video, explain the basic concepts that forms the definition of EBM. Explain the importance of an EBM approach in healthcare.

Tools: e) EBM triad picture, f-g) two diagram on the progression of the number of studies, h) picture explaining the difference between background and foreground questions, i) the story of Cochrane's logo

APPLY (attitudes): start a collective reflection on shared decision making and minimally disruptive medicine

Activity no 2: starting with their thoughts about the 3 other videos, define these concepts and their interrelations with EBM. Large group discussion.

Tools: none specific for this part

APPRAISE (knowledge): identify study types

Activity no 3: Start with a concrete not directly medical example (example is from Dr. Kameshwar Prasad). Ask the students how they would answer the following question: I want to show that students that have the highest grade in anatomy during their pre-clinical years more often become surgeons than those who had worse grades.

Method: Small groups followed by a return in large group. Each group presents what they would have done to find the answer. You can then make the links with different study types. Case-controls, prospective and retrospective cohorts. Ask them if other study types exist. Invite one person from each group to the front of the class to draw the type of study they propose.

Tool: j) Picture presenting the different study types



Caution: Ensure the distinction between a retrospective cohort and a case control study is understood. Starting from the exposure to the outcome vs starting from the outcome. One possible way to discuss RCT here is to think of randomizing students to a different exposure to anatomy. You can also discuss the impossibility of randomizing everything and the place of observational studies in, for example, questions of exposition to different harms. You can also discuss transversal studies, even qualitative studies.

APPRAISE (skills): identify the study type

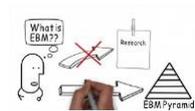
Activity no 4: In small groups. Starting for a series of abstract (about 12) identify the study type. Follow the small groups by a large group discussion.

Activity no 5: Reflection on today's learning. 1) the definition of EBM with its 3 components and its 4 steps. 2) The link between EBM and SDM and MDM. 3) the different study types and how to identify them

TOOLS

Before the course: Listening to 4 short videos

a) EBM (evidence based medicine): https://www.youtube.com/watch?v=Z_yiUf3f92s



[EBM Explained](https://www.youtube.com/watch?v=Z_yiUf3f92s)

www.youtube.com

In this Sketchy EBM video we explore the definition of Evidence Based Medicine and a few of the risks.

b) SDM (shared decision making): <https://www.youtube.com/watch?v=eAaTnGkbpPc>



[What is shared decision making?](https://www.youtube.com/watch?v=eAaTnGkbpPc)

www.youtube.com

Heard the phrase shared decision making but not sure what it means? Watch our video to find out how shared decision making works.

c) SDM 2: <https://www.youtube.com/watch?v=YbsC4nyqHmq>



[Shared decision making challenging myths](https://www.youtube.com/watch?v=YbsC4nyqHmq)

www.youtube.com

Shared decision making challenging myths

d) MDM(minimally disruptive medicine): <https://www.youtube.com/watch?v=b18EWaTevu4>

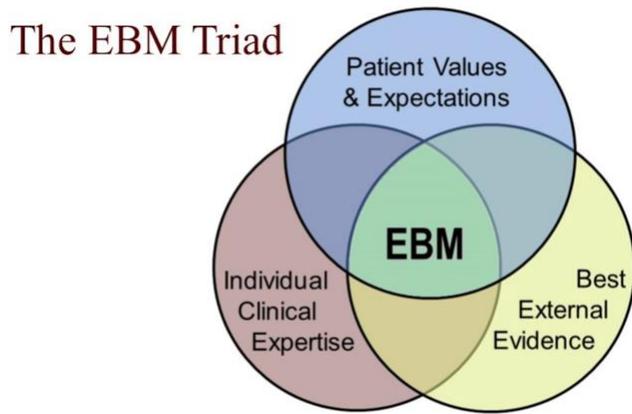


[Make It Easy - all about minimally disruptive medicine - a parody of the Eagles Song Take It Easy](https://www.youtube.com/watch?v=b18EWaTevu4)

www.youtube.com

Make It Easy -- a parody of the great song by the Eagles, Take It Easy - the concepts of minimally disruptive medicine put to music.

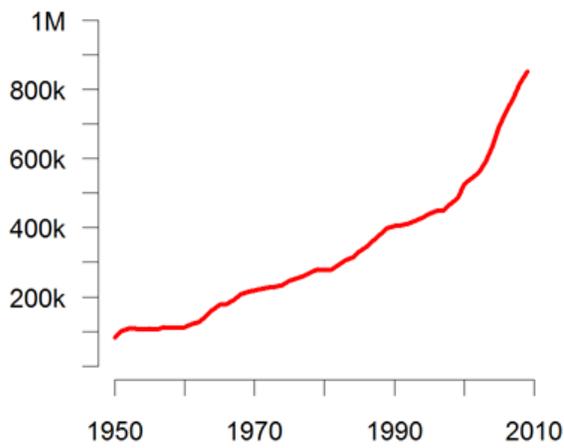
e)



Armstrong, E.C. (2003) Harnessing new technologies while preserving basic values. *Fam Sys & Health*, (21)4, 351-355.

f)

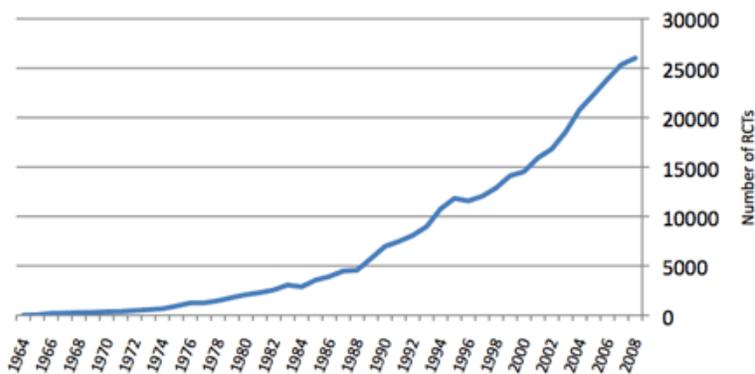
MEDLINE-indexed articles published per year



<http://altmetrics.org/manifesto/>

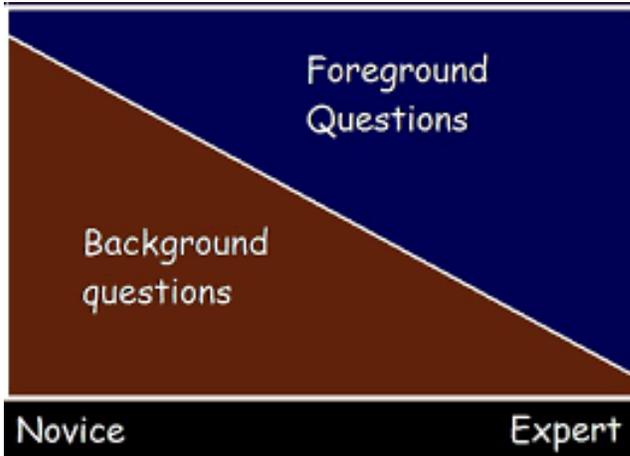
g)

RCTs per year



<http://blogs.trusttheevidence.net/carl-heneghan/how-many-randomized-trials-are-published-each-year>

h)



<http://guides.uflib.ufl.edu/c.php?q=627277&p=4375989>

i)

Our logo tells a story

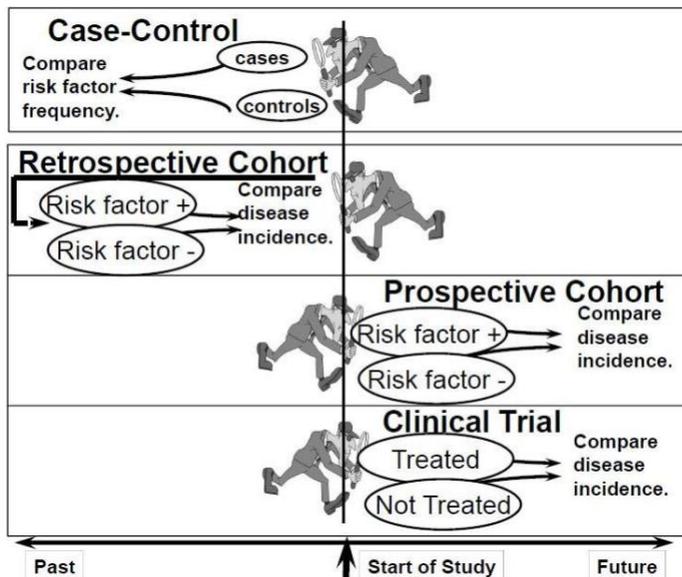


The circle formed by two 'C' shapes represents our global collaboration. The lines within illustrate the summary results from an iconic systematic review. Each horizontal line represents the results of one study, while the diamond represents the combined result, our best estimate of whether the treatment is effective or harmful. The diamond sits clearly to the left of the vertical line representing "no difference", therefore the evidence indicates that the treatment is beneficial. We call this representation a "forest plot". This forest plot within our logo illustrates an example of the potential for systematic reviews to improve health care. It shows that corticosteroids given to women who are about to give birth prematurely can save the life of the newborn child.

Despite several trials showing the benefit of corticosteroids, adoption of the treatment among obstetricians was slow. The systematic review (originally published by Crowley et al. and subsequently updated) was influential in increasing use of this treatment. This simple intervention has probably saved thousands of premature babies.

<https://www.cochrane.org/fr/about-us/difference-we-make>

j)



Boston University School of public health