Ambiguity

...the culture of academic medicine “has little tolerance for ambiguity and uncertainty.” It is true that the traditional route to medical school is not about uncertainty. Individuals who get into medical school likely have done very well in premedical curricula that heavily weight fact-based science exams. Similarly, a large amount of energy in the first two years of medical school is devoted to preparing for the Step 1 exam, which assesses understanding of basic science principles and processes. It is a difficult multiple choice exam for which there are single correct answers. Successful medical students are expert learners of facts, and they have been well-rewarded for that skill. But the care of patients is full of ambiguity and uncertainty.

Why EBM matters

“Health care is rich in evidence-based innovations, yet even when such innovations are implemented successfully in one location, they often disseminate slowly—if at all...Failing to use available science is costly and harmful; it leads to overuse of unhelpful care, underuse of effective care, and errors in execution.”


\[ U = \frac{R \times V}{W} \]

The Well-built question: PICO*
Problem definition

- P = Patient or Problem
- I = Intervention or Exposure
- C = Comparison or Complication
- O = Outcome
- T/M = Time or Methodology (study design)

This mnemonic serves to frame your question and order the logic of a search, but you may not have each element defined (e.g. you may not have a comparison or defined outcome).

*ACP Journal Club, v123:A12, Nov-Dec, 1995 [PMID:7582737]
Patient Orientated Outcomes that Matter (POEM)

• The “Ds”
  – Diagnosis – What’s wrong with me?
  – Death – Am I going to die?
  – Disability – Will I regain function?
  – Discomfort – Can you relieve my pain?
  – Distress – Can you help me cope?
  – Disfigurement – Will I ever look normal again?
  – Drugs – Will I need medications?
  – Dollars – How much will the treatment cost?
  – Discommode – Will this disrupt my life?

DOO, POO and you. Getting on the same page as your patients

Reflective Questions

• Is the evidence or study that I am reviewing focused on patient-oriented outcomes?
• What is interesting about the study?
• What is concerning about this study?
• What do I need to now more about?
You have just seen Lydia who recently delivered a healthy baby. She plans to breastfeed, but also wants to start oral contraception.

You generally prefer to prescribe combination oral contraceptives (estrogen + progesterone) but you have been told that these might more negatively affect her breastmilk production than progesterone only pills.

John is an 11 year old boy who presents with primary enuresis. He has grown frustrated with the inconvenience and embarrassment of his problem. You have excluded the possibility of urinary tract anomalies and infection as possible causes.

You consider recommending a bedwetting alarm, but a colleague tells you he thinks they’re "worthless" and suggests that you treat with imiprimine or desmopressin.
Questions/Help

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• Resources for Clinicians
  – http://hsl.lib.umn.edu/biomed/help/resources-clinicians

• Resources for Mobile Devices
  – http://hsl.lib.umn.edu/biomed/help/mobile