

A Very Brief Introduction to Evidence-Based Medicine (EBM)

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A Simple Question

- o How does the healthcare system know that it is providing the best possible care for patients in a system that is constantly changing?





Medical Education: A Whirlwind History - Galen (200 AD)



- Medical knowledge was handed down from a “wise” teacher to his students who, in turn, would pass on this knowledge to a new generation of medical practitioners
- “Authority-based Medicine”



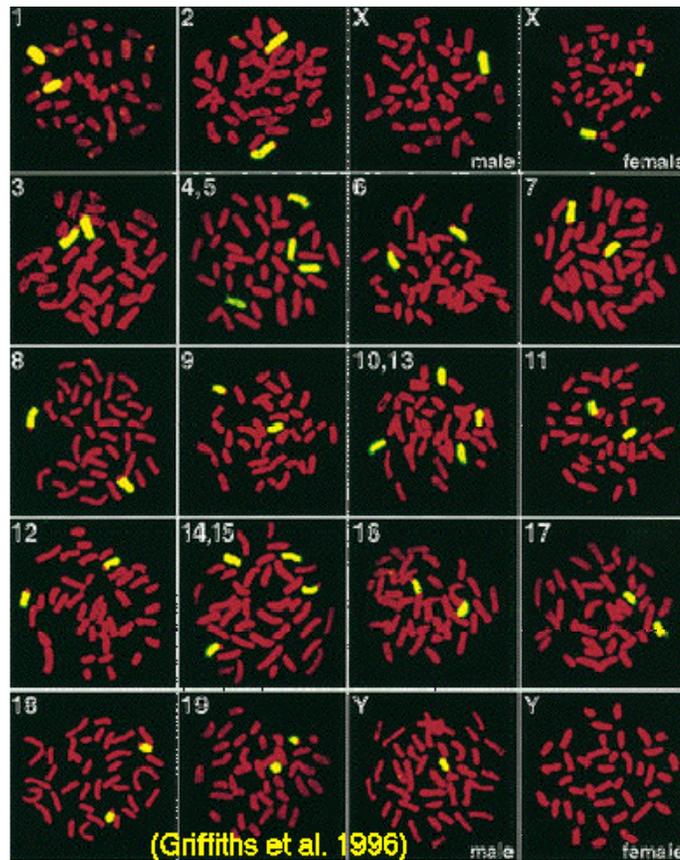
Medical Education: A Whirlwind History - The 18th Century



- International travel and communication become easier
- Pasteur and Semelweis begin our understanding of infection
- There is little science behind the majority of medical practices
- Many doctors in the US are found to be illiterate



Medical Education: A Whirlwind History - Late 20th Century



- Major advances in medical care
 - Antibiotics
 - Surgical methods
 - Molecular Biology
- A boom in medical publications
 - The quantity of publication does not correlate with the quality of the research



Information \neq Useable Data

- Advertising
 - Direct-to-Consumer
 - Provider-focused
- The Media
- Internet
- Medical Journals
- Scientific Meetings

McMaster University

Hamilton, Ontario





Evidence-Based Medicine

“Evidence-based medicine (EBM) is about solving clinical problems. In 1992, we described EBM as a shift in medical paradigms...EBM acknowledges that intuition, unsystematic clinical experience and pathophysiologic rationale are insufficient grounds for clinical decision making.”

-Gordon Guyatt, MD



Evidence-Based Medicine

- EBM requires the integration of the best research evidence with our clinical expertise and our patient's unique values and circumstances

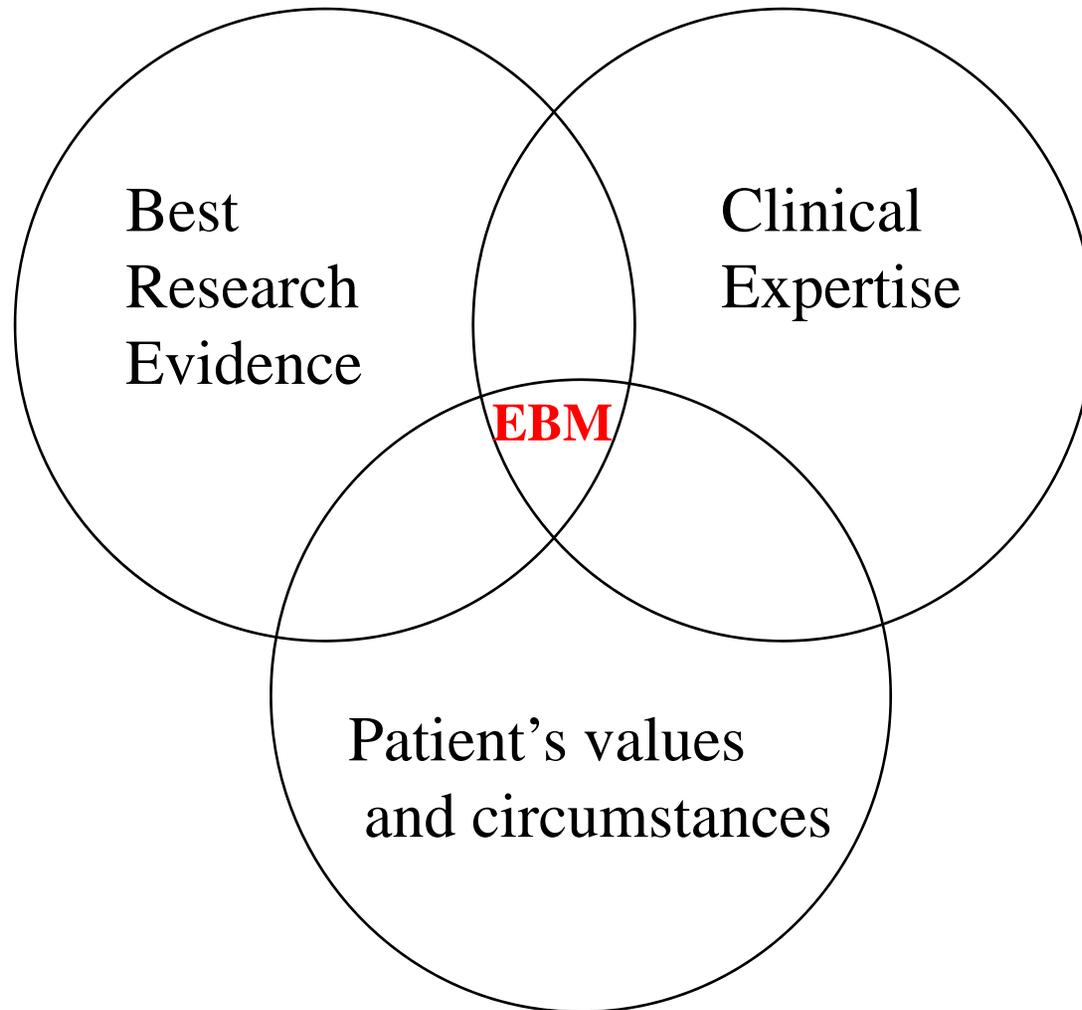


The Evidence Pyramid





Evidence-Based Medicine





EBM Simplified

Critical appraisal *applied* through the
clinician's *experience* and *judgment*