

The Evolution of Evidence-Based Medicine in *American Family Physician*

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In the early 1990s, soon after becoming the editor for *American Family Physician* (AFP), I (Jay) heard about a new concept called evidence-based medicine (EBM). I remember being skeptical about it, thinking that AFP always based clinical decisions on sound, scientific evidence. At the time, our review articles were typically based on an author's nonsystematic use of representative citations, along with expert opinion, to support diagnostic and treatment recommendations. Often, citations of varying quality were used to support those recommendations, without providing any sense of the strength of the underlying evidence.

It took a while for the lightbulb to turn on and for me to realize that the essence of EBM was not to use just *any* evidence, but to use the *best* evidence. And by best evidence, I mean answers derived from a systematic search of all relevant studies, using a rating scale that assessed the quality of those studies, which enables clinical recommendations to be expertly crafted on the basis of a hierarchy of evidence.¹ EBM also incorporates clinical expertise and patient values and preferences rather than using a dogmatic or paternalistic approach.

To do this properly, exhaustive searches of the literature and evaluation of the quality of studies for each clinical question were required. That practice led to another lightbulb moment, which was the decision to base review articles on sources of so-called preappraised evidence: sites that had already completed the heavy lifting by reviewing hundreds of studies and appraising the strength of evidence to generate bottom-line answers to clinical questions. Examples of such sources include the Cochrane Database of Systematic Reviews (www.cochrane.org) and the US Preventive Services Task Force (www.uspreventiveservicestaskforce.org/uspstf).

AFP revised our authors' guide to include sources of preappraised evidence and asked authors to search these sources for relevant high-quality evidence.² We also wrote an article about how to write EBM reviews.³ In 2003, Dr. Mark Ebell joined the AFP team as deputy editor for evidence-based medicine, and he collaborated with other family medicine editors to devise an evidence-rating system (strength of recommendations table [SORT]) that grades the strength of our clinical recommendations on the basis of the type of outcome

WHAT AFP MEANS TO ME

Annually since 2012, AFP has helped readers learn about the top research studies of the year for primary care practice. I have trouble imagining how any journal can better support their readers to use evidence in medical decision-making. I am a practicing family doctor, and I wrote these articles with Mark Ebell, MD, MS, AFP deputy editor for evidence-based medicine. Thank you, AFP, for supporting EBM via your international platform.

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(patient-oriented vs disease-oriented), the consistency of evidence, and whether it is only expert opinion.⁴ He also sought additional ways to incorporate EBM principles into AFP, such as providing curated evidence-based searches of Essential Evidence Plus and PubMed for each author to use in writing their review article.⁵

Along the way, the AFP team developed numerous EBM features to help readers care for their patients. All but three are ongoing, and all are available on the AFP website. Those marked with an asterisk were developed by family physicians.

- AFP Journal Club*: in-depth analyses of clinically important studies
- Clinical Evidence Handbook: A Publication of BMJ Publishing Group: topics from BMJ's EBM reference book
- Cochrane for Clinicians: Putting Evidence Into Practice: summaries of comprehensive reviews from the Cochrane Library
- FPIN's Clinical Inquiries and FPIN's Help Desk Answers*: concise, evidence-based answers to common clinical questions
- Implementing AHRQ Effective Health Care Reviews: summaries of AHRQ's comprehensive comparative effectiveness reviews
- Medicine by the Numbers: succinct assessments of clinical interventions based on the number needed to treat concept
- POEMs: Patient-Oriented Evidence That Matters*: succinct summaries of new, practice-changing studies, selected for their likelihood to improve family medicine practice
- Point-of-Care Guides*: evidence-based tools to aid clinical decision-making at the point of care
- Practice Guidelines: summaries of clinical recommendations from major medical organizations and government agencies
- STEPS: New Drug Reviews: structured evidence-based assessments of new medications relevant to family medicine practice

Author disclosure: Dr. Ebell is cofounder and editor-in-chief of Essential Evidence Plus; see Editor's Note.

- US Preventive Services Task Force: benchmark recommendations on preventive medicine interventions

We also created an EBM Toolkit with a host of resources, including websites, calculators, and EBM-focused glossaries.⁶

Editors still face ongoing challenges in implementing EBM. What constitutes best evidence continues to change in medicine. So does the ideal means of finding, assessing, and delivering this evidence. There are potential solutions that include 1) implementing EBM at the point-of-care (via electronic health records and smartphone apps that incorporate EBM guidelines); 2) rapidly finding EBM answers to clinical questions amid a sea of low-quality information (by being familiar with sources of high-quality, preappraised evidence); and 3) making clinical decisions in the absence of good evidence (by using the principles of EBM as well as finding EBM-based guidelines that provide qualified recommendations despite the limited evidence available).⁷ By updating our content with the best evidence available, *AFP* continues to innovate and lead in helping our readers provide high-quality care for patients.

Editor's Note: The authors are editors of *AFP*. Dr. Ebell is deputy editor for evidence-based medicine for *AFP* and cofounder and editor-in-chief of Essential Evidence Plus, published by Wiley-Blackwell.

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