

NO. The practice of medicine is based on the use of data from scientific research. Let's imagine that we are back in the 1970s. At that time, which was not so long ago, a "good" physician treated the premature ventricular contractions associated with myocardial infarction with lidocaine, acute heart failure with digitalis, asthma with aminophylline, and gonorrhea with penicillin. Patients with a duodenal ulcer who no longer responded to the milk diet and psychotherapy were referred for surgery.

Data from scientific research (ie, evidence) have shown that these approaches have little effect or can even be harmful, and that other treatments are more appropriate. The medical literature is teeming with examples of diagnostic, therapeutic, and preventive approaches that were once common practice and that have since been tossed aside following rigorous assessment.¹

While scientific data are essential to the practice of medicine, the notion of evidence-based medicine goes well beyond a straightforward application of the results of research. *Evidence-based medicine* is defined as the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients.²

Data, regardless of how robust they are, should never be the only basis for clinical decisions.^{3,4} Patient-centred care and shared decision making are at the core of medical practice that is truly evidence-based. This practice relies upon the judgment and expertise of the physician, who takes the scientific data into account (or lack thereof or their unreliability) and clearly shares the information with his or her patient. This practice is also a function of the clinical and social context in which the patient is being treated and of the patient's values and preferences about the risks and benefits of the care being considered.^{3,4} Evidence-based medicine gurus preach that data do not make decisions, individuals do—ideally together.³⁻⁶ Evidence-based medicine defines excellence in medical practice: it is a combination of science, humanism, and art.

Appropriation by pharmaceutical industry

Clearly, the greatest harm that has been done to evidence-based medicine since the term was coined in the early 1990s⁷ is its appropriation by the pharmaceutical industry, which has subjected it to deliberate reductionism for financial gain. Thanks to its quasi-monopoly on large randomized clinical trials (because it can afford it financially) and their outputs (by "buying" publications and clinical practice guidelines), the pharmaceutical industry has for decades dictated to health care professionals and the public what evidence is and how it is to be applied. Obviously, it has done so for its own benefit and gain. It has also reshaped the very notion

of health, transforming risk factors into diseases for which medication becomes the only path back to health.⁸

With general awareness of Big Pharma's influence on medical practice, it is not surprising that many are fighting back against evidence-based medicine, questioning in particular the value and utility of clinical practice guidelines.⁹ Only by placing greater emphasis on teaching medicine that is truly evidence-based can we ensure that these inappropriate and even harmful uses of medical data are brought to light and exposed for what they are. However, much remains to be done.

Applying evidence-based medicine in family medicine

In recent decades, there has been considerable emphasis on the patient-centred approach in our family medicine residency programs. At the same time and separately, residents were exposed to the critical approach to the literature, often as their only introduction to evidence-based medicine. The gap has widened, such that evidence-based medicine is now considered by some to be the inaccessible and exclusive domain of researchers, when it should be a daily pursuit for all clinicians.

Without locking critical reading up and throwing away the key, clinical research data that have been subjected to rigorous analysis or critical synthesis independent of the pharmaceutical industry are increasingly easy to find, thanks to medical search engines (the Trip database, InfoCritique, MacPLUS), critical abstracts (*Evidence-Based Medicine*, InfoPOEMS,

CLOSING ARGUMENTS — NO


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- The practice of medicine is based on the use of data from scientific research.
- The notion of evidence-based medicine goes well beyond a straightforward application of the results of research.
- The pharmaceutical industry has subjected evidence-based medicine to deliberate reductionism for financial gain.
- Shared decision making provides the techniques and methods required to engage in medical practice that is truly evidence-based.

The parties in these debates refute each other's arguments in rebuttals available at www.cfp.ca. Join the discussion by clicking on Rapid Responses at www.cfp.ca.

Infopratique), online textbooks (Essential Evidence Plus, DynaMed, Clinical Evidence, Best Practice, UpToDate), and now, training programs in shared decision making (www.decision.chaire.fmed.ulaval.ca/index.php?id=180&L=2). Truly evidence-based patient decision aids are available in Canada (<http://decisionaid.ohri.ca>), the United Kingdom (<http://sdm.rightcare.nhs.uk>), and the United States (<http://informedmedicaldecisions.org>). These tools are valuable, even crucial, supports for sharing evidence with patients and encouraging them to become actively involved in decisions about their health while respecting their values and preferences.¹⁰

The issue isn't that we place too much emphasis on evidence-based medicine—it's that we don't place enough emphasis on it! 

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Competing interests

None declared

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