

Evidence Based Practice

Paula Vetter RN, MSN, FNP-C

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The term “evidence-based medicine” (EBM) was coined by group of clinicians and epidemiologists at McMaster University in Canada in the early 1990s. David Sackett, MD, part of that influential group, defined EBM as **“the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients. The practice of evidence-based medicine means integrating individual clinical experience with the best external clinical evidence from systematic research.”**(1)

Initially, the concept of evidence-based medicine was embraced enthusiastically by the scientific community and greeted with more skepticism by practicing clinicians. Health professionals, who practiced in the trenches of the “real world”, believed that the model (presented in JAMA in 1992) was impractical for use in a busy medical office.

Today, widespread access to electronic resources and technology makes literature searches almost instantaneous. While EBM is considered to be the ‘gold standard’ of enlightened medical practice, the dilemma comes from ascertaining whether a given study provides **good** evidence (evidence-based evidence vs. agenda-based evidence). While it is often said that “figures don’t lie”, liars DO figure!

The entrepreneurial medical-industrial complex finances copious studies with a clear profit motive. Pharmaceutical companies and health insurance providers are heavily invested in the outcome and publication of numerous clinical trials. Transparency and third party validation are important hallmarks of legitimacy.

While randomized clinical trials (RCTs) are the crème de la crème of clinical research, Dr. Sackett also emphasized **“the integration of best research evidence with clinical expertise and patient values.”** (2) Major evidence-based medicine databases, such as the Cochrane Collaboration or Essential Evidence Plus use a validity assessment and assign a level of reliability to individual studies based on specific research criteria. PubMed/Medline is a more comprehensive source, but requires more diligent analysis for validity and objectivity.

We cannot profess academic integrity when we practice anecdotally. We do not evolve or practice enlightened medicine by bowing to medical myths. We serve our patients best by being aware of cutting edge science and ascertaining the validity of emerging research to a specific clinical question in a given patient. Each clinical

decision is a data point whose outcome is measured , documented, tracked and then compiled into a meaningful framework for practice.

The five step model of evidence-based medicine consist of:

1. Convert information needs into answerable questions
2. Efficiently locate the best information to answer those questions
3. Critically evaluate the evidence for validity and usefulness
4. Apply the results of your appraisal in your practice
5. Evaluate and document the efficacy of the approach (3)

Evidence-based practice is defined as “making a conscientious effort to base clinical decisions on research that is most likely to be free from bias, and using interventions most likely to improve how long or well patients live.” (4)

Biochemical individuality will never lend itself to “cookbook” medicine. Deciphering patterns through astute clinical observation, objective testing, documentation and analysis is essential. In this way, each practitioner has the opportunity (and responsibility) to contribute to the growing research in CIRS. Today’s data will guide tomorrow’s practice.

1. Sackett, DL, Rosenberg WMC, Gray, JAM, Haynes, RB, Richardson, WS. Evidence-based medicine: what it is and what it isn’t. BMJ 1996;312: 71-2.
2. Sackett, DL, Strauss SE, Richardson WS, et al. Evidenc- based medicine: how to practice and teach EBM. London: Churchill-Livingstone, 2000.
3. Slawson, DC, Shaughnessy AF. Teaching evidence-based medicine. Acad Med. 2005 Jul: 80(7) 685-89.
4. Ebell, MH (Ed) EssentialEvidencePlus.com.