



Evidence-based Databases

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Are you basing your everyday clinical decisions on real evidence? And if you're already practicing evidence-based medicine, or EBM, what sources do you rely on for your decision-making process? Although there's no shortage of information to suggest to the physician what to do, the "why" behind the instruction is not always apparent.

Of course, as a practical matter, the pursuit of "the reason why" can be overwhelming. EBM is a data-based concept, and the amount of data streaming in from claims data and electronic medical records is getting more and more voluminous all the time. Not only that: an estimated 82 randomized, controlled trials are published every day. Physicians just don't have time to review all the literature that may apply to a particular patient's situation. There has to be some kind of selection process. What are your options? Going to the primary literature is one option, but that would be exhausting and hardly systematic. A second option would be textbooks. These could help, but they tend to be outdated pretty fast, and by their very nature, textbooks cannot embrace the very latest literature.

For many physicians in private practice, the best option may be evidence-based databases. These online databases offer time-saving efficiency and a reliable shortcut to reach the latest and most pertinent evidence you need in making decisions for your patients. As long as you have access to the Internet, you can search these databases for any specific papers that address the very kind of patient you're dealing with. Often there will even be a link to enable you to retrieve and read the full text right away.

Once you arrive at an online database, if you're like most other physicians, you are likely to go in search of randomized, controlled trials, which are widely considered the best source of evidence for evaluating treatment strategies. The trouble is, most of the literature out there does not consist of randomized trials, but rather case histories or retrospective studies or other variations. But often a randomized trial won't supply the answers you're looking for, anyway. Suppose, for example, you want to know what pregnancy would be like for a woman with multiple sclerosis. This is a prognosis question that is unlikely to be addressed by randomized trials, which are much more likely to focus on interventions. As a result, you may throw up your hands in frustration and conclude that no evidence exists for your patient's issue, and you are likely to go back to doing whatever you customarily do—a lost opportunity for evidence-based medicine.

Another problem is that most medical schools don't require courses in interpreting clinical trials, and there is no standard method for teaching evidence-based healthcare, epidemiology, and biostatistics during medical school or residency. Even when these subjects are taught in medical school, they are likely to be condensed into a one-month course.

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Still another problem is the lack of a standardized format for reporting studies. Such a standard format would help by improving the writing quality of papers and making it easier for clinicians to digest the information. The Consort statement, a checklist for reporting randomized trials, was endorsed by several leading journals a few years ago and has provided an evidence-based approach to standardizing the reporting of trials. Today there is a movement toward additional forms of standardization—for example, STROBE for observational studies, QUORUM for meta-analyses of randomized trials, and STARD for diagnostic studies.

But remember, we don't always need a randomized, clinical trial in the first place; different types of trial designs answer different types of questions, and the physician who keeps an open mind is more likely to come away from a computerized database with useful, evidence-based information.

A study conducted two years ago found that the sources of information that physicians rely on had changed very little over the past thirteen years. Most physicians tend to rely on two main sources of information—their colleagues and printed literature, including journals and books. Internet-based sources and other electronic databases had not had much of an impact. But with the new and rapidly growing emphasis on evidence-based medicine, that may change.

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