



Outcomes Journal

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Research Pearl: Part 2 of a 2 part series contributed

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The Reflective Practitioner

Why engage in an 'evidence-based' practice?

Many clinicians have always engaged in an evidence-based practice (EBP) or attempted to keep abreast of contemporary developments in medicine. However, the evolution of medical information systems and vast expansion of medical knowledge requires refined new skills to identify, evaluate and implement the most recent and relevant state-of-the-art information in patient care.

Sackett et al articulate reasons why we should engage in EBP:¹

- New types of evidence are now being generated, which, when we know and understand them, create frequent, major changes in the

The Outcomes Journal is a monthly publication provided by the Western Slope Study Group, Inc. a not-for-profit organization created for the purpose of educating and developing tools for health care providers to better understand the value of the study of Clinical Outcomes and to further Evidence-Based Practice in the medical industry.

Currently, WSSG is conducting a Depression study in conjunction with Rocky Mountain HMO, Western Colorado Physicians Group and Family Physicians Group of Western Colorado. Other data collection is ongoing with Rocky Mountain Orthopaedic Associates and Western Orthopaedics and Sports Medicine.

For information on all of our activities refer back to the main website or call 970-243-9970.



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Researchers Under-report Drug Safety Problems

WSSG thanks Agency for Healthcare Research and Quality (AHRQ) for this article

Press Release Date: January 23, 2001

Randomized controlled trials (RCTs)—the gold standard for evaluating medications—appear to largely under-report or even neglect to report problems involving drug safety, according to researchers supported by the continued on page 2

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U.S. Agency for Healthcare Research and Quality (AHRQ).

Their study in today's *Journal of the American Medical Association* (JAMA) found that, on average, medical journal articles about drug trials devote only a third of a page to safety information—such as side effects of medications and the frequency and reasons for patient withdrawals—roughly the same space they devote to naming the contributors and their affiliations.

“Adequate reporting of drug safety problems is critical because clinical trials have traditionally been the foundation of high-quality, evidence-based medical practice,” said AHRQ Director, John M. Eisenberg, M.D., whose agency is leading federal research efforts to improve patient safety.

According to the study's authors, John P.A. Ioannidis, M.D., of Tufts University School of Medicine and Greece's University of Ioannina School of Medicine, and



Main Street
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Traditional continuing medical education does not improve our clinical performance

- way we care for our patients.
- We need this new evidence daily, but we fail to get it
- Because of this, both our up-to-date knowledge and our clinical performance deteriorate with time
- Traditional continuing medical education does not improve our clinical performance
- EBM has been shown to keep its practitioners up to date

What are the components of practicing EBP?

Friedland et al state EBM “is the practice of making medical decisions through the judicious identification, evaluation and application of the most relevant information.”⁴

They state the three central components as 1. Medical decision-making techniques access to medical information and assessment of the validity of medical information.⁴ These components can more simply be stated as follows:

- The art of asking clear, concise and relevant questions about ones patients that are readily answerable with a literature search.
- Efficiently and effectively searching the available literature for articles that might answer the question(s).
- Evaluate the merits of the most relevant articles from the search result, and assessing the validity and value of the most

important and ‘strongest’ articles for my practice.

- Implementing the findings in the care of a patient or patients by either forming a new practice pattern (e.g. consistent and ‘overwhelming’ evidence against a therapeutic intervention from the literature or no positive effect ever demonstrated) or supporting the practice pattern begun or to begin with the patient.

We have found in our practice that another very important constellations of functions for the EBP approach revolve around patient education and informed consent. These include: a) To fully inform the patient about the various options for treatment or interven-



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Joseph Lau, M.D., of The New England Medical Center, the quality of safety reporting also appears to be inadequate.

The researchers examined safety reporting in 192 randomized drugs trials, each involving a minimum of 100 patients and at least 50 patients in each study arm. More than 130,000 trial subjects were involved overall. The trials tested medications for seven areas: HIV therapy; antibiotic therapy for acute sinusitis;

thrombolysis-clot dissolving drugs—for heart attack; non-steroidal anti-inflammatory drugs for rheumatoid arthritis; high blood pressure treatment in the elderly; antibiotic treatment of *Helicobacter pylori*, a major cause of stomach ulcers; and selective decontamination of the gastrointestinal tract.

The severity of medication side effects and drug toxicity revealed by abnormal laboratory test results, was

adequately explained in only 39 percent and 29 percent, respectively, of drug trial reports, and a further 11 percent and 8 percent, respectively, had partially adequate reporting.

Also, while the numbers of patients in each trial study arm who had to be withdrawn because of drug toxicity were cited in 75 percent of trial reports, the specific reasons for these discontinuations were given only 46 percent of the time.

According to the authors, major strides have been made in standardizing the collection, analysis and reporting of efficacy data in clinical trials, but efforts to evaluate and improve the quality of analysis and reporting of safety data lag behind.

Details are in "Reporting of the Safety of Medications in Randomized Trials is Neglected: An Evaluation of Seven Medical areas," published in the January 24, 2001, issue of JAMA.

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tions (e.g. the literature search on the various surgical options available for a shoulder instability with Bankart lesion & SLAP tear.); b) to aid decision-making with the patient about of various interventions such as complementary or alternative medicine (e.g. glucosamine or osteoarthritis, magnets for pain relief); and c) to provide the patients with a framework for the practice pattern that you, as a clinician, propose to use in their condition (e.g. manipulation in low back pain).

In closing, there will always be a gap between research and clinical practice. Maitland calls this gap the 'permeable brick wall. Critics of EBP, such as Tonelli and DiFabio, are correct in asserting the primacy of expertise in practice; however,

the synthesis of clinical experts examining the evolving evidence for practice, through research, creates an brilliant model for orthopaedic manual physical therapy practice in the 21st Century.

the evolution of medical information systems and vast expansion of medical knowledge requires refined new skills to identify, evaluate and implement the most recent and relevant state-of-the-art information in patient care.

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