

Evidence in Action

Evidence-Based Resources

By Dana J. Lawrence, DC

IN OUR EVIDENCE-IN-ACTION COLUMNS, we have endeavored to present you with clinical scenarios in which a doctor finds some piece of information related to a challenging case, assesses that information and finally applies it to the patient. In doing so, we are hoping to expose you to various concepts and topics that help you learn how to better extract information from the paper(s) we cite. These goals have led us to discuss topics that include likelihood ratios, positive and negative predictive value, sensitivity and specificity, risk and odds ratios, case-control and cohort studies and so on. But buried in each one of these topics was this initial thought: First, you had to locate a piece of evidence. Because that search is not always an easy task, please allow this column to differ from others while I discuss an issue critical to the practice of evidence-based care.

To begin with, where do chiropractic physicians find evidence? We know that you can always locate useful information on PubMed, which is a gateway to the scientific literature (although not always to some of the more specific forms of purely chiropractic literature). But on the Internet, you can find myriad locations for information. I wish to use this column to provide you with a bit of information related to each one of them. In part, I am using a blog post I wrote for *Dynamic Chiropractic* as the driver for this column (<http://blog.dynamicchiropractic.com/research/2015/03/information-sources>).

These sites, I believe, offer you great value in seeking and finding worthwhile information.

1. THE CENTRE FOR EVIDENCE-BASED MEDICINE

(www.cebm.utoronto.ca)

I love this site. It gives you access to teaching tools for evidence-based medicine (EBM), as well as links to online calculators and tools that can help you assess papers that you read. It has tons of information, can be used by clinicians and academics and is open to public use. It is quite simply a great resource.

2. COCHRANE LIBRARY

(www.cochranelibrary.com)

Cochrane was the dream of Archie Cochrane, who wanted to have one source that could be used to locate and compile all the clinical trials ever done in medicine. Having such a compendium would allow information seekers to effectively use what they found to assess the effectiveness for treatment, following some fairly rigorous guidelines. Cochrane carried out his project marvelously. He is fighting the specter of publication bias, as well (some research never got published, thus slanting the assessment results). Cochrane can give you information on treatment effectiveness for many chiropractic therapies, as well as other conservative approaches to various problems. I must note that sometimes the answers can be fairly narrow and the methods used may be obscure, but I do love visiting the site.

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3. NATURAL STANDARDS DATABASE

(<http://naturalstandard.com/databases>)

There are a number of databases on this site. I must, however, make the disclaimer that I am listed on the editorial board. Still, for people who are in conservative care fields, this is a superb data source. For example, not only can it give you straightforward background information about many conditions, but it can also discuss the effectiveness of treatments, provide diagnostic information and give you information about herbs and supplements, as well as how they interact with various drugs.

4. EVIDENCE SEARCH

(www.nice.org.uk/About/What-we-do/Evidence-Services/Evidence-Search)

This is a sub-site of NICE (National Institute for Health and Care Excellence). It is a free web-based portal that can link you to information that is related to health care information. In doing so, it reviews more than 300,000 pieces of information.

5. THE EBM TOOLKIT

(www.ebm.med.ualberta.ca/EvidencePractice.html)

This is a wonderful site that provides you with information about all sorts of good locations for finding evidence. There are links to both filtered and unfiltered sources, and many other strong informational links. In addition, the site provides you with links to analyses that will help you read over and understand therapeutic papers, reviews, economic analyses and other kinds of papers. There is also a glossary of EBM-related terms.

6. TRIP DATABASE

(www.tripdatabase.com)

TRIP stands for "Turning Research into Practice," and it is a site that has been available since 1997. By using TRIP, you can run filtered searches that link you very quickly to clinical information. The algorithms here differ from those at PubMed, however, so you may not turn up the same papers if you use TRIP compared to PubMed. You can search anonymously, or you can register for the site and log in each time; the benefit of doing the latter is that you can save searches for future use.

7. UIC RESEARCH GUIDES

(<http://researchguides.uic.edu/content.php?pid=232200&sid=1921078#Dynamed>)

This site is linked to the University of Chicago. It is a powerful site that offers a wealth of evidence. Different tabs will bring you to new pages discussing levels of evidence, PICO (Patient, Intervention, Comparison, Outcomes), clinical filters, searching PubMed, appraisal of information, EBM databases, EBM resources and a glossary. It is sort of a one-stop shop. This is designed to help consumers become more efficient users of medical literature.

8. PUBMED

(www.ncbi.nlm.nih.gov/pubmed)

It bears pointing out that this is the 500-pound gorilla in the corner of search sites. PubMed contains more than 20 million records related to health care. Most of us can easily do a simple search on PubMed, but with so much information that is made available, we need to know how to better use the site to make our searches more efficient. Thus, it is important to understand where the filters are on PubMed, how to use them and how to obtain a paper once it is noted by PubMed.

Filters are, for example, located on the left-side column, and you can set them in many different ways. For example, you can choose to locate only reviews or clinical trials, to locate only human research (and not animal), to locate only clinical information (and not basic science) or to limit a search to conservative care (thus eliminating drug and surgical papers). The site provides you with many learning resources, as well, so you can be more effective in your searching. I often note to my students that PubMed is not Google; it processes information differently (and this can be strikingly illustrated by asking you to predict how many papers PubMed will discover if you search for Brain CT. Go ahead and do it. It won't be what you expected, I bet). Knowing its idiosyncrasies will help you maneuver in the system better. And the more you use it, the more adept you will become.

So many other sites do exist: ACP Journal Club, Dynamed, InfoPoems, National Guidelines Clearinghouse, the PeDRO database, MANTIS, CINAHL, PEPID and so on. There is a whole world of information out there just waiting for you; it is time to go and play. ■

