Editorials

AFP's Series on Finding Evidence and Putting It into Practice

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If you are a typical family physician, you will see between 20 and 30 patients per day. Direct observation studies show that at least 20 clinical questions will arise as you see those patients,[1] but that most go unanswered because of lack of time or resources, or a perception that a good answer does not exist.[2,3] Other research has shown that the answers to those unanswered questions have the potential to change patient care, and we know from the adult learning literature that answering questions and solving problems in the context of our work is critical for learning and growth.

The answers to your questions—perhaps too many answers—are out there. In 2007, more than 750,000 articles were indexed in PubMed, including more than 70,000 review articles and more than 30,000 clinical trials. Physicians are bombarded with information from these studies, in addition to monographs, continuing medical education lectures, practice guidelines, pharmaceutical company representatives, local experts, and colleagues. Whereas an ophthalmologist or radiation oncologist can limit his or her reading to a few key journals, information critical to the practice of family medicine is published in a wide range of medical journals.

If family physicians don't keep asking and answering clinical questions, their knowledge base will grow increasingly out of step with current practice, and their patients will suffer. But it isn't enough to find just any answer; it should reflect the best patient-oriented evidence, have the potential to change practice for the better, and improve important clinical outcomes.[4]

There is a rich body of literature advising physicians on how to ask and answer questions. Too often, though, it has encouraged physicians to focus on PubMed searches and the original research literature,[5] a time-consuming and sometimes frustrating process. This is not unlike trying to encourage people to use e-mail and the Internet by teaching them how to write Javascript code, or encouraging people to bake bread but forcing them to grow their own wheat. Hardly a recipe for success!

Family physicians are busier than ever and have limited time to keep current with the literature. Reading lengthy and detailed original research studies is hardly the best use of that time. Practicing physicians, and even most academic physicians, do not have the training or time to critically appraise all of the articles needed to answer clinical questions or stay current.

I propose a different skill set that prioritizes making the practicing family physician an informed consumer of the secondary literature (e.g., evidence-based guidelines, systematic reviews, critical appraisals, validated decision-support tools *[Table 1]*).[6-13] The physician must become an expert at assessing the quality of an information source. Does the information focus on patient-oriented outcomes? Is it truly evidence based, or does it merely have a lot of references? Is it free of industry or other special interest bias? Does it summarize information in a way that makes it easy to access and apply at the point of care?

Contemporary physicians must also have the ability to ask good, answerable clinical questions; they must be skilled computer users; and they must understand the language of evidence-based medicine. By identifying the best secondary information sources and using them to stay current and answer clinical questions, family physicians can become experts at managing medical information to benefit their patients.

In this issue of *American Family Physician*, Dr. Shaughnessy launches a six-part series on finding evidence and putting it into practice.[14] These short articles, which will be published once a month, will teach you how

Table 1. Examples of Secondary Medical Literature

Type	*Definition*	*Examples*
Evidence-based practice guideline	Guideline based on a systematic review of the literature that states the strength of evidence for key recommendations	National Guideline Clearinghouse (http://www.guidelines.gov) National Institute for Health and Clinical Excellence (http://www.nice.org.uk) U.S. Preventive Services Task Force (http://www.ahrq.gov/clinic/uspstfix.htm)
Systematic review	Study that addresses a focused clinical question by reviewing all of the literature and combining data from different studies, if appropriate	Cochrane Collaboration (http://www.cochrane.org/) Database of Abstracts of Reviews of Effects (http://www.crd.york.ac.uk/crdweb/) Meta-analyses and systematic reviews published in the original medical literature
Critical appraisal	Structured summary of a research study that describes findings and identifies any methodologic shortcomings	American College of Physicians Journal Club (http://www.acpjc.org/) Essential Evidence Plus (http://www.essentialevidenceplus.com)
Validated decision-support tool	Decision-support tool that integrates findings from the history, physical examination, and laboratory tests to assist in diagnosis or prognosis	Canadian Head CT and C-Spine rules to guide imaging in patients with head and neck trauma[6,7] CURB-65 and Pneumonia Severity Index for prognosis in patients with pneumonia[8,9] Ottawa rules for radiography of the ankle, foot, and knee[10,11] Strep score for diagnosis of group A beta-hemolytic streptococcal pharyngitis[12] Wells scores for deep venous thrombosis[13]

Information from references 6 through 13.

to become a more informed physician, with a focus not on math and statistics, but on practical skills you can apply immediately in your practice.

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