



# Advancing Evidence-Based Practice: A Primer

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Evidence-based practice (EBP) requires a shift from the traditional paradigm of clinical practice grounded in intuition, clinical experience, and pathophysiological rationale. In the EBP paradigm, clinical expertise is combined with integration of best scientific evidence, patient values and preferences, and the clinical circumstances. This primer article provides a summary of driving forces mandating EBP, barriers to EBP, and an overview of the EBP process highlighting critical resources and practices.

The publication of the Institute of Medicine (IOM) report, *To Err is Human* (2000), was a startling wake-up call that the U.S. healthcare system, once believed to be the gold standard, was in fact a potential hazard to one's health. Its findings revealed that preventable medical errors were the eighth leading cause of death in the United States. It estimated that at least 44,000 and as many as 98,000 Americans die each year as a result of medical error. Concerns over quality became widespread among healthcare providers and the public.

Following closely was a second IOM report, *Crossing the Quality Chasm* (2001), which took a hard look at quality issues in the U.S. healthcare system. A major theme to the report was that medical science and technology have advanced at a rapid pace and that healthcare delivery has lagged behind. Between the actual care that people receive and the care that they should receive (based on new science) lies not just a gap, but a chasm. The report proposed 10 new rules (see Table 1) necessary to cross this chasm and redesign the administration of healthcare and improve quality of care. Rule number five called for evidence-based decision making. The report advised that the healthcare workforce be prepared for practice in a new environment characterized by application of evidence to healthcare delivery and use of information technology to deliver and monitor care. Moreover, it was recommended that payment policy be aligned with quality improvement in these 10 areas.

## Driving Forces of Change

Economic factors, the variability in care, and the vast amount of medical/nursing literature have been major drivers in the call for evidence-based practice. Continuous escalation of healthcare costs has left governments and

purchasers of healthcare demanding accountability for effectiveness and efficiency in care. The IOM report (2001) highlighted the problem of variability in quality care, indicating that patients receive recommended care (best practices) just 55% of the time. Much of this variability was attributed to clinicians not remaining current with the latest science and best practices.

Shin, Haynes, and Johnston (1993) examined physicians' knowledge and found that knowledge of best current practice is negatively correlated (declines) with years since medical school graduation ( $r = .54, p < .001$ ). Estabrooks (1998) had similar findings with a sample of nurses—what they learned in nursing school was the knowledge base on which they relied. Sackett, Rosenberg, Gray, Haynes, and Richardson (1996) concluded that although the “art” of practice improved over time, the physician's knowledge of the science supporting practice declined. An explanation of this lack of knowledge may be explained by Gorman's (1994) examination of the reading habits of practicing physicians. Gorman found that just under half of participating physicians (49%) read 1 hour or less per week and only 8% read over 3 hours per week. This figure can likely be extrapolated to the nursing community. These patterns make it impossible for healthcare providers to be current with the latest literature and clinical recommendations.

In reality, remaining “up to date” to provide effective quality care has become an insurmountable task, with more than 1,500 new articles and 55 new clinical trials every day. Individual clinicians cannot hope to locate and read even a small portion of the research published each year (Cilaska, Pinelli, DiCenso & Cullum, 2001). This gap in research knowledge is magnified in light of studies that have shown that those nurses who do read professional literature tend to read clinical journals/articles without a research focus (Wright, Brown, & Slowman, 1996; Pravikoff, Tanner, & Pierce, 2005; Restas, 2000). Consequently, they will be less likely to be exposed to new science to support practice.

If scientific evidence is not driving practice, what is? Estabrooks (1998) and Pravikoff et al. (2005) found that knowledge sources used most frequently by nurses

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The author has no significant ties, financial or otherwise, to any company that might have an interest in the publication of this educational activity.

**TABLE 1. TEN NEW RULES FOR CARE**

1. Continuous healing relationships
2. Customization based on patient needs, values
3. Patient as source of control
4. Shared knowledge/free flow of information
5. Evidenced-based decision making
6. Safety as system property
7. Transparency
8. Anticipation of patient needs
9. Continuous decrease in waste
10. Cooperation among clinicians

are teachings from school, experience (past and usual practice), followed by workplace colleagues. Considering that the average age of nurses in the United States is 46.8 years (Health Resources and Services Administration [HRSA], 2004) then it is likely that many of

these “expert” nurses act with certainty based on an outdated or an insufficient knowledge base (McKibbin, 1998). Reliance on experience or opinion of colleagues is likely not to guarantee that the “best science” or “latest evidence” is integrated in practice. In fact, some of our experience perpetuates “bad” practice. Table 2 presents common practices grounded in medical myth—practices that continue despite clear evidence to the contrary. Reliance on knowledge from school, experience, and expert opinion contributes to the finding that there is a 17-year lag between new science and its adoption in clinical practice (Shine, 2001).

## The Shift Toward Evidence-Based Practice

The mandate to change the prevailing culture from “opinion-based practice” to “evidence-based practice” is clear. But what is evidence-based practice (EBP),

**TABLE 2. MEDICAL MYTHS**

Myth	Reality	Evidence Source
Stretching before and after exercise decreases muscle soreness, prevents injury, and improves exercise performance.	Stretching before or after exercising does not confer protection from muscle soreness. Stretching before exercising does not seem to confer a practically useful reduction in the risk of injury, but the generality of this finding needs testing. Insufficient research has been done with which to determine the effects of stretching on sporting performance.	Herbert, R. D., & Gabriel, M. (2002). Effects of stretching before and after exercising on muscle soreness and risk of injury: Systematic review. <i>British Medical Journal</i> , 325(7362), 468. PMID: 12202327
“Figure-of-Eight” dressings or similar appliances are the preferred treatment for clavicle fractures.	No statistical difference was found in the speed of recovery when clavicle fractures were treated by either a figure-of-eight bandage or broad arm sling.	Stanley, D., & Norris, S. H. (1988). Recovery following fractures of the clavicle treated conservatively. <i>Injury</i> , 19(3), 162–164. PMID: 3248891
Treat acute otitis media in children with antibiotics to hasten resolution of pain and fever and to prevent complications, such as perforation, chronic effusion, recurrent acute otitis media, and suppurative complications.	Antibiotics offer only minimal or modest benefit with respect to pain and fever short term and minimal or no benefit in pain, fever, and significant complications beyond 48 hours.	<i>Management of acute otitis media</i> . Summary, Evidence Report/Technology Assessment: Number 15, June 2000. Agency for Healthcare Quality and Research, Rockville, MD. <a href="http://www.ahrq.gov/clinic/epcsums/otitisum.htm">www.ahrq.gov/clinic/epcsums/otitisum.htm</a>
Sliding scale insulin is effective and appropriate therapy for managing diabetes in the hospital.	Although sliding scale insulin regimens are prescribed for the majority of inpatients with diabetes, they appear to provide no benefit; in fact, when used without a standing dose of intermediate-acting insulin, they are associated with an increased rate of hyperglycemic episodes.	Queale, W. S., Seidler, A. J., Brancati, F. L. (1997). Glycemic control and sliding scale insulin use in medical inpatients with diabetes mellitus. <i>Archives of Internal Medicine</i> , 157(5), 545–552. PMID: 9066459
Narcotics can mask the signs and symptoms of an acute abdomen.	Early administration of opiate analgesia to patients with acute abdominal pain can greatly reduce their pain. This does not interfere with diagnosis, which may even be facilitated despite a reduction in the severity of physical signs.	Attard, A. R., Corlett, M. J., Kidner, N. J., Leslie, A. P., Fraser, I. A. (1992). Safety of early pain relief for acute abdominal pain. <i>British Medical Journal</i> , 305(6853), 554–556. PMID: 1393034
Bed rest is a useful adjunctive therapy.	A meta-analysis of 39 studies of the use of bed rest vs. early mobilization for prevention and treatment of a variety of medical conditions showed bed rest to be at best not beneficial and at worst harmful.	Allen, C., Glasziou, P., Del Mar, C. (1999). Bed rest: A potentially harmful treatment needing more careful evaluation. <i>Lancet</i> , 354(9186), 1229–1233. PMID: 10520630

Examples taken with permission from Flaherty, R. “Medical Mythology.” [www.montana.edu/wwwwebm/myths/home.htm](http://www.montana.edu/wwwwebm/myths/home.htm).

and what is needed for EBP to become the prevailing culture?

EBP is a clinical decision-making approach critical to promoting best patient outcomes. The definition of EBP has evolved over time; however, central elements to the definition include research and best practices, patient preferences, the clinical context or clinical circumstances, and clinician expertise (see Figure 1). The Centre for Evidence-Based Medicine (2006) adopted Sackett's definition of EBP as "the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual or groups of patients." It continues with a description that: "This practice requires the integration of individual clinical expertise with the best available external clinical evidence from systematic research, available resources, and our patient's unique values and circumstances." The definition is not discipline specific but crosses all disciplines. As a multi-disciplinary team caring for patients, EBP offers a paradigm where evidence is a leveling factor and care discussions center on evidence in relation to outcomes rather than relying on the "way we do things around here" or because "that is what the orthopaedic surgeon prefers."

The definition provided connotes a new way of practicing. It calls for a deliberate careful process of searching for and integrating evidence into practice. Accomplishing this requires that the practitioner have access to a set of tools, resources, and procedures for finding current best evidence from the research and a knowledge base for asking questions, retrieving relevant literature, critiquing literature for its credibility and relevance, and applying relevant findings into patient care decision making. Through this systematic process, the quality of patient care will be maximized (Narayanan & Wright, 2002). Achieving this goal is both an individual and an organizational responsibility—either alone will not achieve the reform called for in *Crossing the Quality Chasm*.

## Barriers to Evidence-Based Practice

Understanding the barriers to EBP is a beginning to planning for the shift in practice. A commonly cited barrier to this shift is the belief that this approach over-

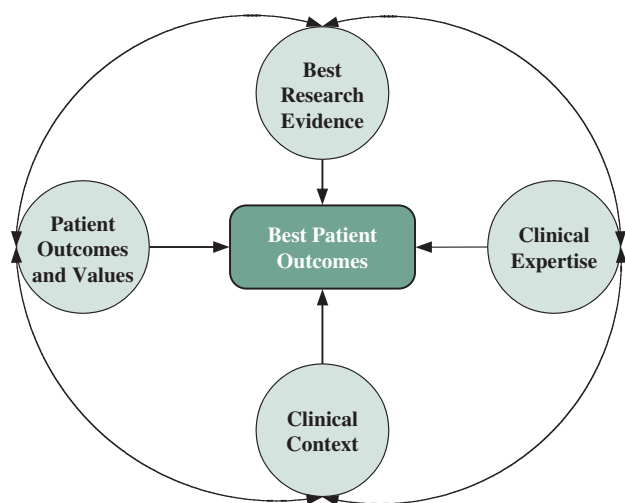


FIGURE 1. Components of Evidence-Based Decision Making.

emphasizes limited available evidence and minimizes clinical expertise and experience. Sackett (1997) captures this concern and stresses the need for balance between expertise and evidence. He states, "Without clinical expertise, practice risks becoming tyrannized by external evidence, for even excellent external evidence may be inapplicable to or inappropriate for an individual patient." He goes on to say, however, that "without current best external evidence, practice risks becoming rapidly out of date, to the detriment of patients." EBP does not replace clinical reasoning or judgment. Moreover, the lack of evidence in many clinical situations necessitates the continuation of tradition-based practices and expert opinion. It is estimated that less than 20% of medical practice and even less of nursing practice is supported by solid evidence (Gray et al., 2002). Use of EBP identifies the gaps in evidence and sets the stage for implementation of primary research in these areas.

Multiple studies have shown that critical barriers to integration of EBP focus on clinicians' lack of a skill set/knowledge base for asking the questions, searching for evidence, appraising the evidence, and integrating it into decision making (Estabrooks, 1998; Haynes & Haines, 1998; Pravikoff et al., 2005; Restas, 2000). Additional skill sets that are also lacking include computer skills, information searching, and interpreting statistical information (Thompson, McCaughan, Cullum, Sheldon, & Raynor, 2005). Further barriers include nurses' lack of perceived value for nursing research. Hutchinson and Johnston (2006) identified a perceived lack of value for research among nurses but showed evidence that a positive attitude toward research was a strong positive predictor on research utilization. Geyer (2004) identified that nurses perceive research as too complex, too academic, and overly statistical and do not believe that research studies have clinical credibility.

System barriers have contributed to the lack of knowledge and failure to use EBP (Caramanica et al., 2002; Pravikoff et al., 2005; Restas, 2000). Poor access to information technology at the point of care prohibits efficient seeking of best evidence. For EBP to be "doable," the resources must be present at the point of care to accommodate busy practitioners.

Ineffectual continuing education programs remain a system problem. Most do not provide the needed "hands-on" experiences to learn the new skills, and rarely is follow-up provided to assist nurses to gain expertise in the skills and integrate them into daily practice. Limited time, lack of system priorities for EBP, and difficulties in changing practice once best evidence is identified further impedes skill acquisition and implementation.

A subtle yet powerful barrier to integration of EBP is the culture of nursing itself. Nursing as a profession does not embrace scholarship and advanced learning as critical to practice. The nursing culture emphasizes rituals, traditions, isolated unsystematic clinical experience, and ungrounded opinion to that of an intellectually centered profession. The traditional nursing culture values "doing." Just see what happens if a staff nurse were to sit reading a critical piece of evidence while others around him or her were busy with multiple tasks. Transition to an EBP culture will require a shift from only "doing" to inclusion of time for reflection. Using research requires opportunities for practitioners to reflect

on their practice and keep abreast of emerging research in their areas. Having an EBP culture requires ongoing scholarly inquiry to ensure that best practices are being implemented. Organizations that are successful in this transition must incorporate strategies for this to occur and to be viewed as integral to the “work” of nursing.

A final barrier is the difficulty in changing practice (individually as well as organizationally). Haynes and Haines (1998) found that practitioners are resistant to

withdrawing established treatments from practice even once their own utility has been disproved. Clearly, the path from generation of evidence to the application of evidence is not an easy path. Understanding the complexity of change, especially culture change, is critical to successful implementation efforts.

Table 3 summarizes barriers identified in empirical research and suggests strategies for overcoming these barriers.

**TABLE 3. BARRIERS AND STRATEGIES TO OVERCOME BARRIERS**

Barriers	Strategies
<ul style="list-style-type: none"> <li>• Lack of perceived value for research and evidence-based practice (EBP)</li> </ul>	<ul style="list-style-type: none"> <li>• Emphasize clinical variation data and inconsistent provision of best practices</li> <li>• Identify key research to practice area and perform gap analysis between actual and best practices</li> <li>• Create a culture of “informed skepticism” where nurses ask “Why?” “Is there a better way?”</li> </ul>
<ul style="list-style-type: none"> <li>• Lack of time</li> </ul>	<ul style="list-style-type: none"> <li>• Make lifelong learning an individual, as well as organizational, responsibility</li> <li>• Dedicated time to advance EBP at unit and organizational level</li> <li>• Access to EB sources</li> </ul>
<ul style="list-style-type: none"> <li>• Lack of knowledge and skills for finding, assessing, interpreting, and applying current best evidence</li> <li>• Research perceived as too complex</li> </ul>	<ul style="list-style-type: none"> <li>• Self-directed reading of EBP literature—process and findings</li> <li>• Clinical inquiry—what information is needed to guide practice?</li> <li>• Information retrieval based on PICO or similar questions and information critique educational sessions followed by guided support in this skill acquisition</li> <li>• Didactic and hands-on development sessions must be combined or skill set will be lost</li> <li>• Nursing research/EBP newsletter/bulletins</li> <li>• Provide educational sessions and explanatory columns in journals to assist readers of research with understanding statistics or research design.</li> <li>• Simplify the writing of nursing research</li> <li>• Provide preappraised summaries and critiques of nursing research for evidence level and quality</li> </ul>
<ul style="list-style-type: none"> <li>• Lack of informatics skills and difficulty accessing research materials</li> </ul>	<ul style="list-style-type: none"> <li>• Technology champions to assist</li> <li>• Hands-on training in search skills</li> <li>• Computerized decision-support systems</li> </ul>
<ul style="list-style-type: none"> <li>• Lack of access to “user-friendly” EB sources</li> </ul>	<ul style="list-style-type: none"> <li>• EB journals, secondary sources—synthesized evidence-based services, such as electronic databases, systematic reviews, and journals, that summarize evidence and critically appraise studies in which the results are ready to be applied to clinical settings; appraisals are summarized in an EB journal</li> <li>• Cochrane library has pledged to summarize all randomized control trials (RCTs) of healthcare intervention</li> <li>• Computerized decision-support systems are maturing and allowing research findings to be taken one step further by fitting the evidence into patient-specific reminders and aids to decision making</li> <li>• Access to libraries</li> </ul>
<ul style="list-style-type: none"> <li>• Lack of systematic ways to promote clinical scholarship</li> </ul>	<ul style="list-style-type: none"> <li>• Access to expert research nurses</li> <li>• Journal clubs provide an avenue to find, critique, and evaluate evidence for implementation in practice</li> <li>• Establish collaborations between service and academic settings</li> <li>• Research roundtables to enable novice nurse researchers to learn EB skills from expert nurse researchers</li> </ul>
<ul style="list-style-type: none"> <li>• Lack of systematic supports to implement EBP changes</li> </ul>	<ul style="list-style-type: none"> <li>• Develop EBP councils to facilitate and empower practice change</li> <li>• Set expectations that practice be grounded in standards of care</li> <li>• Facilitate interdisciplinary collaboration on unit level for EBP practice change</li> <li>• “Expert” nurses to assist in evidence translation</li> <li>• Manager’s support: provide resources and support for staff to implement best practice</li> </ul>

## The EBP Skill Set

### DEVELOPING A CLINICAL INQUIRY APPROACH

The new values of EBP call for all practitioners to adopt a mindset of informed skepticism. The EBP clinician asks the wicked questions: *Why are we doing it this way? Is there a better way to do it? What is the evidence for what we do? What practice guidelines are available to support my practice? Would doing this be as effective as doing that? and What constitutes best practice?* Being driven by these questions, the informed skeptic goes to the literature and is able to find answers or find evidence that must be appraised to answer the question. The skills of finding the evidence replace the expectation that the individual clinician be “all knowing.” Expertise now lies, in part, on being able to find the evidence. The evidence is available for everyone to read and understand and determine how to implement.

### ASKING CLINICAL QUESTIONS

The first step in integrating evidence into practice is to convert information needs from practice into focused, structured, searchable questions. With the volume of scientific literature today, the busy clinician does not have time to search through hundreds of articles to find an answer. The goal in asking clinical questions is to be able to find good quality, relevant research efficiently that will lead to sound, evidence-based answers to resolve clinical problems and improve patient outcomes

(McKibbin, 2001). One key to efficiency is asking a focused question.

To pose a question, one must determine the important concepts that comprise the question. PICO is a mnemonic used to describe four elements of a good clinical question (see Table 4). “P” represents the patient, population, or problem being addressed; “I,” the intervention or dimension of interest; “C,” the comparison intervention; and “O,” the outcome. The sequence of the components does not have to follow the PICO order. In using the PICO components from Table 4, one might ask, “Does the use of hydrocolloid dressings compared to gauze dressing provide greater patient comfort in patients with sacral pressure sores?” or “In adults with limited mobility does bidaily nurse supervised ambulation vs. standard physical therapy alone increase independent mobility and function?”

### FINDING THE ANSWERS

The goal in searching is ideally to find quality answers to your structured questions in a timely manner. This means that the first source you search should be good preappraised/prefiltered secondary sources that summarize the literature and give you a useful actionable plan based on the evidence (White, 2004). With these sources, the work of finding and critically appraising the literature has been done for you.

Preappraised or prefiltered evidence means that “an individual or group of individuals with expertise in a particular substantive area has reviewed and presented the

**TABLE 4. ASKING PICO QUESTIONS**

Element of the Clinical Question	P Patient	I Intervention (or Cause, Prognosis)	C Comparison (Optional)	O Outcome
	Describe as accurately as possible the patient or group of patients of interest.	What is the main intervention or therapy you wish to consider, including an exposure to disease, a diagnostic test, a prognostic factor, a treatment, a patient perception, a risk factor, etc.	Is there an alternative treatment to compare, including no disease, placebo, a different prognostic factor, absence of risk factor, etc.	What is the clinical outcome, including a time horizon if relevant?
<b>Example 1.</b>	In patients with chronic back pain	does keeping a pain diary	—	reduce pain and increase functional ability?
<b>Example 2.</b>	In adults with limited mobility	does bi-daily nurse supervised ambulation	compared to standard physical therapy	increase independent mobility and function?
<b>Example 3.</b>	Among family members of patients undergoing diagnostic procedures	does listening to tranquil music, or audiotaped comedy routines	compared to standard care	make a difference in the reduction of reported anxiety?
<b>Example 4.</b>	In patients with sacral pressures sores	does the use of a hydrocolloid dressing	compared to gauze dressing	provide greater patient comfort?
<b>Example 5.</b>	In patients immediately after cervical or lumbar puncture	does immediate mobilization or short bed rest	compared to longer bed rest	prevent headache?

methodologically strongest data in the field” (Giuatt & Rennie, 2002). Preappraised sources include more manageable search results containing high-quality studies or reviews (Birch, Eady, Robertson, DePauw, & Tandan, 2003). In the past few years there has been an explosion in production of preappraised sources, making EBP more realistic for busy practitioners. Table 5 identifies many sources for high-quality secondary sources of best practices. These sources focus on continually searching, appraising, and summarizing relevant literature for practitioners. Many of these sources are available electronically as well as for use with PDAs—all bringing evidence closer and closer to the point of care. Many of these sources are available through your hospital library, and interdisciplinary evidence-based councils or task forces should be advising libraries regarding their needs.

In the absence of preappraised literature, searches through *MEDLINE* (the largest database of biomedical journal literature in the world) or *CINAHL* (the *Cumulative Index of Nursing and Allied Health Literature*) should be done. This will retrieve individual studies on the chosen clinical question. In the organizational setting, clinical scholars groups comprising staff and advanced practice nurses frequently have important clinical questions in which there are no preappraised sources. These groups retrieve individual studies and critically appraise the studies for their validity, strength of findings, and usefulness to a specific patient population to make decisions about clinical practice.

## LEVELS OF EVIDENCE

Not all evidence is the same. EBP requires evaluation of the literature from a hierarchical perspective. The EBP clinician must know the strength of the evidence found and therefore the accompanying degree of uncertainty to make decisions about whether evidence should be applied to practice (Bhandari, 2003). Figure 2 presents the classic hierarchy of evidence triangle. With each descending level on the pyramid, the chance for bias increases. Evidence-based clinical guidelines and systematic reviews (SRs) are at the top of the hierarchy, providing the richest source of best evidence. Evidence obtained from at

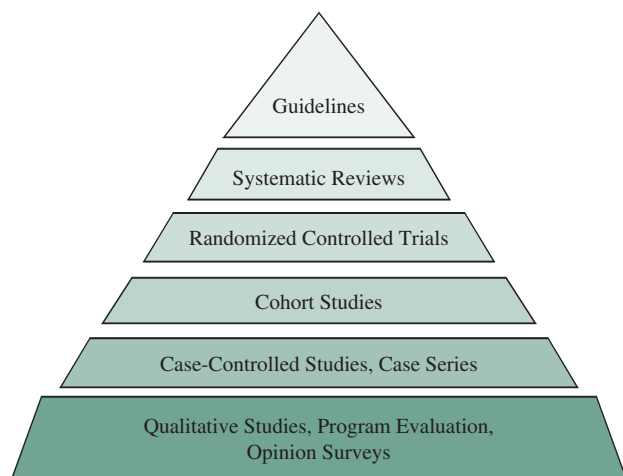


FIGURE 2. Pyramid of evidence.

least one well-designed randomized controlled trial (RCT) is next followed by evidence obtained from well-designed controlled trials without randomization and from well-designed cohort studies and case-controlled studies. Descriptive studies, evaluation studies, and qualitative studies are generally positioned at the base of the pyramid. The focus of EBP is to locate best available evidence—this may from the bottom of the pyramid.

Because much of nursing evidence is not examined from a quantitative perspective but from a qualitative paradigm where description of experience is the goal (i.e., to understand the experience of recovery in hip fracture patients), there is a compelling need to assure that qualitative studies are valued for the scientific data produced. As can be seen in Figure 3, the pyramid for the hierarchy of evidence focusing on description of experience is quite different. Here the lowest tier includes quantitative studies, especially the RCT.

In both pyramids, the highest quality data is found in evidence-based guidelines and SRs. Practice guidelines have evolved from being primarily consensus-based documents (opinion not backed by science) to guidelines developed using rigorous scientific methods. An evidence-based clinical practice guideline is “a statement that is based on scientific literature, that explicitly documents the process used to develop the statement, and grades the strength of the evidence used in making clinical recommendations” ([www.chestnet.org/education/guidelines/currentGuidelines.php](http://www.chestnet.org/education/guidelines/currentGuidelines.php)).

Today, there are some good clinical guideline resources such as those from the U.S. Preventive Services Task Force and the Institute for Clinical Systems Improvement (see Table 5).

An SR is a rigorous systematic approach to review of primary studies on a topic. The investigator uses a pre-planned comprehensive search strategy to locate all potentially pertinent articles. The articles are screened so that only high-quality studies are ultimately reviewed in depth. Articles that are selected as relevant from the initial screen are then appraised, data are synthesized, results are interpreted, and a summary of the best available evidence is provided.

The advantages of an SR are the minimization of error and bias because of the rigorous scientific review process and the relative ease for the clinician when provided with



FIGURE 3. Pyramid of evidence: description of experience.

**TABLE 5. SECONDARY SOURCES PROVIDING PREAPPRAISED EVIDENCE**

Name	Description	Cost*	Publisher/Sponsor
<b>Journals</b> <i>Evidence-Based Nursing</i> <a href="http://febn.bmj.com">http://febn.bmj.com</a>	Published quarterly. Surveys a range of international medical/nursing journals applying strict criteria for the quality and validity of research. Practicing clinicians assess the clinical relevance of the best studies. The key details of these essential studies are presented in a succinct informative abstract with an expert commentary on its clinical application.	£91.00 for print and online	British Medical Journal Publishing Group
<i>Worldviews on Evidence-Based Nursing</i> <a href="http://www.blackwellpublishing.com/journal.asp?ref=1545-102X&amp;site=1">http://www.blackwellpublishing.com/journal.asp?ref=1545-102X&amp;site=1</a>	Published quarterly. Journal focus is to bridge knowledge and application taking a global approach in its presentation of research, policy and practice, education, and management. Broad scope of articles, including knowledge synthesis articles, original articles and features that present research, and articles and commentaries about current evidence-based nursing issues and developments.	\$116/year	Sigma Theta Tau International, Blackwell Publishing
<i>International Journal of Evidence-Based Healthcare</i> <a href="http://www.blackwellpublishing.com/journal.asp?ref=1744-1595">http://www.blackwellpublishing.com/journal.asp?ref=1744-1595</a>	Published quarterly. The journal publishes systematic reviews and scholarly papers relating to evidence translation, transfer, and utilization from the Joanna Briggs Institute and its international Collaboration as well as from submitting authors. The Joanna Briggs Institute aims to advance the international understanding and development of evidence-based practice in multidisciplinary healthcare, including nursing, midwifery, nutrition and dietetics, physiotherapy, occupational therapy, medical radiation, and podiatry.	\$105/year print and online	
<i>ACP Journal Club</i> <a href="http://www.acpj.org">http://www.acpj.org</a>	Bimonthly journal that analyzes the content of more than 100 clinical journals and summarizes those articles found to have scientific merit and relevance to medical practice.	\$78/year includes print version and online access. 800-523-1546, ext. 2600	American College of Physicians
<i>American Family Physician</i> <a href="http://www.aafp.org/afp">http://www.aafp.org/afp</a>	Twice monthly clinical review journal that contains evidence-based components, such as POEMs (patient-oriented evidence that matters), Cochrane for Clinicians, and Point-of-Care Guides.	Free online access; free print subscriptions are available to family physicians. 800-274-2237 ext. 5168	American Academy of Family Physicians
<i>Bandolier</i> <a href="http://www.jr2.ox.ac.uk/bandolier">http://www.jr2.ox.ac.uk/bandolier</a>	Monthly journal that searches PubMed and the Cochrane Library for systematic reviews and meta-analyses published in the recent past and summarizes those that "are both interesting and make sense."	Free online; £72/year for print version. <a href="mailto:maura.moore@pru.ox.ac.uk">maura.moore@pru.ox.ac.uk</a>	Produced from Pain Research at Oxford University with multiple sponsors
<i>The Journal of Family Practice</i> <a href="http://www.jfponline.org">http://www.jfponline.org</a>	Monthly clinical review journal that contains evidence-based components, such as its online archives of POEMs.	Free subscriptions are available to family physicians. 800-707-7040	Dowden Health Media
<b>Evidence Summaries</b> Clinical Evidence <a href="http://www.clinicalevidence.com">http://www.clinicalevidence.com</a>	A compendium of systematic reviews, gathered from Cochrane, MEDLINE, and other sources, updated and expanded every 6 months.	Primary care physicians can receive free copies of Clinical Evidence Concise with access to the full text online and on CD-ROM through the United Healthcare Foundation: <a href="http://www.unitedhealthfoundation.org/registration.cfm">http://www.unitedhealthfoundation.org/registration.cfm</a>	BMJ Publishing Group