



EBP: EVIDENCE TO PRACTICE

What Is Evidence-Based Practice?

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EVIDENCE-BASED PRACTICE (EBP) has led to important improvements in patient quality and safety, while also contributing to cost savings. Many professional organizations and federal and international agencies have pulled research findings together to make practice recommendations for clinicians to use to improve health care outcomes. There are many clinically relevant topics for perianesthesia nursing that have evidence to guide practice (e.g., avoiding surgical complications, preventing surgical site infections, preventing central line bloodstream infections, pain management). Yet patients do not consistently receive evidence-based care.

Local, national, and international efforts have led to important developments in evidence-based practice and delivery of evidence-based health care. In this column, we plan to share information that will support adoption of EBP to improve outcomes for patients, families, clinicians, and organizations. Our goal is to share current developments so readers can gain additional knowledge and skills to apply EBP principles. This first column will describe the linkages and differences between EBP and related terms. Watch for information describing the EBP process and application in perianesthesia nursing in upcoming columns.

What is evidence-based practice? The term *evidence-based practice* comes from a movement in the United

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Kingdom that occurred during the same time US nurses were focusing on research utilization. Research utilization is the application of research findings in practice. EBP uses research findings but incorporates additional concepts. Evidence-based nursing is defined by Sigma Theta Tau International as "... the process of shared decision-making between practitioner, patient, and others significant to them, based on research evidence, the patient's experiences and preferences, clinical expertise or knowledge, and other available robust sources of information."¹ Many others have shared similar definitions based on Sackett et al's work, defining EBP as health care delivery based on the integration of the best research evidence available combined with clinical expertise, in accordance with the preferences of the patient and family.^{2,3}

The challenge in using EBP comes in making patient-centered care a priority and "knowing what you don't know." Practitioners should *always* ask themselves the following questions:

- Why am I doing this particular nursing intervention?
- Does it need to be done?
- If so, am I doing it the best most effective way? How do I know?
- Is there another way that might be better?
- Have I really considered the preferences of the patient and family?
- What results am I hoping to see?
- Am I getting the results I want?

Using EBP is not the same as conducting research, although this is a frequent source of confusion. The purpose of conducting research is to generate new knowledge. The purpose of using EBP is to take what is already known and use it to guide patient care to achieve the best possible outcomes for the patient.

Why the confusion? Many times, patients are used as subjects in research, and the research data that are collected may be very similar to quality improvement data that are routinely collected. And, yes, in the process of putting changes in patient care into practice, practitioners may actually learn new things; that is how clinical expertise is developed. Also, when putting EBP changes into

practice, the changes should be evaluated, creating outcome data similar to that reported through research; but the purpose behind the action remains the distinguishing factor. Is the practitioner trying to use existing knowledge to improve patient care, or is the practitioner taking part in or conducting a research project that is attempting to generate new knowledge?

And speaking of data, where does quality improvement (QI) fit into this picture? *Quality improvement* is defined as “the process-based, data-driven system approach to improving the quality of patient care so that it is safe, effective, patient-centered, timely, effective and equitable.”⁴ The QI process includes collecting and using data.

Some QI projects are focused on improving processes in the hospital, like reducing the time for operating room turnover between cases. Others are EBP projects to improve patient care, such as the use of preoperative antibiotic or surgical site preparation.

Thus, in fact, implementing an EBP project *is* a QI project because the goal of EBP is to improve the quality of care. However, a QI project may or may not be EBP. For example, a QI project may lead to the redesign of a nursing unit or the location of supplies so that nurses take fewer steps per day. This QI project may not fit the definition of EBP, but it will improve the working conditions for the nurse and work flow processes and may improve patient care in the process. Hence, in many respects, EBP can be viewed as a subset or part of QI.

The value and importance of using EBP is rarely questioned, but the issue becomes: How does change take place on a nursing unit or in an organization? And what

can practitioners do to speed up the process? The answer lies in the relatively new field of Implementation Science. We talk of implementing a project, or implementing change, but what exactly does it mean, and how does it happen? *Implementation* is the process of putting into effect the decision to adopt a change in practice (e.g., a research finding, an evidence-based health care practice). It is important to know that there are evidence-based strategies to help practitioners put interventions in place at the point of care. It is helpful to use a model to guide the implementation of EBP. In the next two columns of *EBP: Evidence to Practice*, we will discuss the Iowa Model of EBP⁵ and a model to guide implementation.⁶ These models help practitioners understand how to use the EBP process to improve health care outcomes.

So where do you, as a practitioner, begin the process of using EBP to improve patient outcomes? We know that, despite recent gains, use of evidence-based health care is inconsistent in many settings.⁷⁻¹⁹ How well is evidence used in guiding perianesthesia and perioperative care? The Surgical Care Improvement Project (SCIP) measures provide an important starting point when evaluating use of evidence in practice.^{20,21} The Center for Medicare and Medicaid Services' website offers a fairly user-friendly application for consumers to compare hospitals they are considering on some SCIP measures (<http://www.hospitalcompare.hhs.gov/>). Have you looked at the data from your organization? Have you compared your organization's data with those of other facilities? Have you discussed these data with colleagues and created plans for continuous improvement or sustaining the gains? Watch this column for strategies to address challenges found in the EBP process and resources that support adoption of EBP in practice.

References

1. Sigma Theta Tau International Research and Scholarship Advisory Committee. Sigma Theta Tau International Position Statement on Evidence-Based Practice February 2007. Summary. *Worldviews Evid Based Nurs*. 2008;5:57-59.
2. Sackett D, Rosenberg W, Gray J, et al. Evidence based medicine: What it is and what it isn't. *BMJ*. 1996;312:71-72.
3. Sackett DL, Straus SE, Richardson WS, et al. *Evidence-based Medicine: How to Practice and Teach EBM*. London: Churchill Livingstone; 2000.
4. Institute of Medicine. *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington, DC: National Academy Press; 2001.
5. Titler MG, Kleiber C, Steelman VJ, et al. The Iowa Model of Evidence-Based Practice to Promote Quality Care. *Crit Care Nurs Clin North Am*. 2001;13:497-509.
6. Titler MG, Everett LQ. Translating research into practice: Considerations for critical care investigators. *Crit Care Nurs Clin North Am*. 2001;13:587-604.
7. Agency for Healthcare Research and Quality. *National Healthcare Quality Report 2008*. AHRQ Publication No. 09-0001. Rockville, MD: AHRQ; 2009. Available at: <http://www.ahrq.gov/qual/nhq08/nhq08.pdf>.
8. Asch SM, Kerr EA, Keesey J, et al. Who is at greatest risk for receiving poor-quality health care? *N Engl J Med*. 2006;354:1147-1156.
9. Bullock-Palmer RP, Weiss S, Hyman C. Innovative approaches to increase deep vein thrombosis prophylaxis rate resulting in a decrease in hospital-acquired deep vein thrombosis at a tertiary-care teaching hospital. *J Hosp Med*. 2008;3:148-155.
10. Gerrits M, Avery T, Lagro-Janssen A. Urinary incontinence management in women: Audit in general practice. *J Eval Clin Pract*. 2008;14:836-838.
11. Gilutz H, Novack L, Shvartzman P, et al. Computerized community cholesterol control (4C): Meeting the challenge of secondary prevention. *Isr Med Assoc J*. 2009;11:23-29.
12. Mangione-Smith R, DeCristofaro A, Setodji C, et al. The quality of ambulatory care delivered to children in the United States. *N Engl J Med*. 2007;357:1515-1523.
13. McGlynn EA, Asch SM, Adams J, et al. The quality of health care delivered to adults in the United States. *N Engl J Med*. 2003;348:2635-2645.
14. McInerney TK, Cull WL, Yudkowsky BK. Physician reimbursement levels and adherence to American Academy of Pediatrics well-visit and immunization recommendations. *Pediatrics*. 2005;115:833-838.
15. Peterson ED, Bynum DA, Rose MT. Association of evidence-based care processes and outcomes among patients with acute coronary syndromes: Performance matters. *J Cardiovasc Nurs*. 2008;23:50-55.

16. Peterson ED, Roe MT, Mulgund J, et al. Association between hospital process performance and outcomes among patients with acute coronary syndromes. *JAMA*. 2006;295:1912-1920.

17. Shrank WH, Asch SM, Adams J, et al. The quality of pharmacologic care for adults in the United States. *Med Care*. 2006;44:936-945.

18. Sprague AE, Oppenheimer L, McCabe L, et al. Knowledge to action: Implementing a guideline for second stage labor. *MCN: Am J Matern Child Nurs*. 2008;33:179-186.

19. Zuckerman B, Stevens GD, Inkelas M, et al. Prevalence and correlates of high-quality basic pediatric preventive care. *Pediatrics*. 2004;114:1522-1529.

20. Oklahoma Foundation for Medical Quality. Home page. Available at: <http://www.ofmq.com/>. Accessed January 2009.

21. Surgical Care Improvement Project. Available at: <http://www.qualitynet.org/dcs/ContentServer?c=MQParents&pagename=Medqic/Content/ParentShellTemplate&cid=1122904930422&parentName=>Topic. Accessed January 2009.

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