

Bringing Evidence-based Best Practices Into Practice

More than 600 Minnesota physicians put EBM to work.

By Beth M. Averbek, M.D.

The Vanderbilt Center for Evidence-based Medicine (EBM) defines the term as “the judicious application of scientific knowledge by clinicians in tandem with patient preferences and values ... an ongoing process of integrating evidence with the clinician’s training and expertise for the care of patients and patient populations.” But, according to a 2003 study of 89 health plans sponsored by the Center, only 55 percent of physicians adhere to evidence-based best practices.

Physicians want to deliver the best possible care to patients and EBM supports them in this effort. So why is there such a lag in the adoption of evidence-based medicine?

Knowledge management is a challenge. The explosion of information from clinical trials and other studies makes it difficult for physicians to keep abreast of new evidence-based standards. Some physicians are wary of EBM as “cookbook medicine” that may restrict their autonomy and curtail their discretion in treating unique patients.

Resource constraints are another issue. Some physician organizations argue that they do not have adequate resources to adopt and implement evidence-based best practices, especially when they face conflicting payer policies on reimbursement for various treatment alternatives.

Lack of understanding and clarity about best practices and concerns about resources are real problems. But, the most fundamental difficulties in adopting EBM are rooted in the care process. According to George J. Isham, M.D., chief health officer at HealthPartners, disjointed care systems and ineffective processes impede physicians by erecting barriers to putting best-science standards of care into practice. The real challenge is to deploy available resources more effectively in care systems designed to manage knowledge with reliable, efficient tools that bring EBM into routine clinical practice. Information technology must support clinical workflows that make it realistic for physicians to use best practice guidelines in real time.



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Transforming the Care Process

HealthPartners Medical Group & Clinics (HPMG) has more than 600 physicians who practice in 35 medical and surgical specialties at 24 primary care and specialty care clinics. HPMG is part of HealthPartners, a Minneapolis-based family of nonprofit, consumer-governed healthcare organizations that includes a 630,000-member health plan.

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At HealthPartners, “Pursuing Perfection” is a strategic initiative that aims to redesign the care process according to a planned care model organized around prepared practice teams. Teams include clinicians (physicians or nurse practitioners), registered nurses, licensed practical nurses and clerical staff. The planned care model puts the patient at the center of the care process, brings best-science guidelines into the relationship with the patient, focuses on designated team members completing the right

task at the right time, and continuously engages the patient. Thus, prepared practice teams partner with patients in ongoing relationships guided by evidence-based best practices and supported by health information made accessible by IT in the care process.

Teams engage patients and coordinate care in a systematic process that encompasses four phases of care: **1) previsit**, the time when health risk or the need for services is first recognized and the patient contacts his clinic; **2) visit**, from the time a patient checks in to his departure from the clinic; **3) post-visit**, from departure to the completion of the care plan established during the visit; and **4) between visit**, from completion of the care plan until the next previsit (or ongoing care for chronic conditions).

Today, 219 primary care and multispecialty care and 172 specialty care teams are implementing the planned care model. HealthPartners is a founding member of the Institute for Clinical Systems Improvement (ICSI), whose expert panels of Minnesota physicians from 45 physician organizations collaborate on ongoing review and updating of guidelines based on current clinical research. Prepared practice teams implement care plans based on best practices issued and maintained by ICSI. With IT support, prepared practice teams are implementing these evidence-based standards in redesigned care processes.

Best Practices for Diabetes

HealthPartners uses ICSI’s evidence-based guidelines for diabetes. For patients ages 18 to 75, the “Optimal Diabetes Care” standard requires all of the following elements: annual screening for LDL with LDL less than 100 mg/dL, HbA1C screening within the last six months with a value less than 7 percent, last recorded systolic blood pressure less than 130 mm, documentation in the medical record that the patient does not use tobacco, and documentation that the patient regularly takes aspirin (if age 40 or older).

This comprehensive standard reflects research evidence that optimally managing *all* risk factors is essential to achieve significant improvement in outcomes for patients with chronic conditions such as diabetes. HealthPartners aims to increase the percentage of patients with diabetes meeting each requirement of Optimal Diabetes Care from 2 percent in 2003 to 20 percent in 2005. In 2004, HPMG clinics reached an average optimally managed rate of 8.6 percent.

Making Progress

The Woodbury Clinic is one of the most successful of HPMG clinics in advancing toward the diabetes standard. In 2004, Woodbury increased its percentage of patients meeting every requirement from 7.3 percent to 9.5 percent and is positioned to meet or exceed the 20 percent goal. Bernard Quebral, M.D., practices internal medicine at Woodbury. In 2004, 14.5 percent of his patients with diabetes met all the requirements of the diabetes standard.

Quebral and Pam Morben, site/care delivery supervisor, agree that a key to success is that every member of their prepared practice team knows the guidelines and is empowered to take action to meet them. Teams have access to patient registries developed with HealthPartners' electronic medical record (EMR) from Epic Systems to identify and monitor where their patients stand on each of the diabetes requirements. Therefore, the team's appointment scheduler, for instance, can review the registry, rapidly pinpoint which patients' lab values do not meet the standards and contact them to schedule lab tests or office visits. Similarly, when a patient calls the clinic for medication refills, the registered nurse reviews the registry and the patient's record and decides what action is required, such as scheduling a visit to update prescriptions.

Quebral's team does basic previsit planning. Before scheduled office visits, the team's scheduler calls the patient and arranges to get any required lab work completed. Quebral reviews the patient's lab results and electronic record, with particular attention to his notes from the last two previous office visits. He also looks over the guidelines and best-practice alerts and assesses and adjusts any pending orders. Then he uses the EMR to produce a letter that is mailed to the patient that summarizes and comments on the recent lab results and indicates what the patient can expect during his visit.

This previsit process ensures that patients' lab values are current before their office visits. During visits, Quebral invites patients to look with him at their lab values and the guideline summary in the EMR on his computer screen. Visit summaries generated by the EMR ensure that the patient and all team members understand the post-visit and between-visit care plan. Using the EMR to present trends over time in their lab values helps Quebral convince patients to commit to their care plans.

The Role of IT

It is possible, but would be daunting, to adopt EBM without an electronic medical record. Dependable and practical support for best-practice care is one of the most important rationales for EMR implementation.

HealthPartners has automated a core set of ICSI guidelines to support best-science care. Based on the patient's signs and symptoms, the EMR presents a best-practice alert with a checklist summary of the guideline and recommended care steps. When physicians select the guideline, order entry takes only a few mouse clicks. Physicians can also point-and-click to modify an order set. Relevant patient education materials can be printed based on best-practice guidelines.

The EMR provides a patient-centered data structure that makes patient registries an important resource for prepared practice teams. The EMR's visit summaries for patients explain their conditions, document the care provided that day and summarize follow-up care steps. This encourages patient responsibility and supports an ongoing healing relationship with the patient.

Finally, evaluation is essential. Physicians and care teams require reliable comparative data to assess and monitor their performance and guide continuous improvement. An EMR offers significant advantages for evaluation. Medical record data are generally available within three weeks of the end of each quarter. Analysts can access medical record data electronically, without timely and costly manual chart reviews, and therefore can include all cases in analysis and reporting as opposed to a sample culled and pulled manually from paper charts. Complete and timely comparative data are thus available for performance evaluation.