

Commentary: Why Evidence-based Medicine is a Key Component of Patient Safety

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Every hospital has been affected by the recent public and professional interest in improving the safety of patients. This interest was sparked by the 1999 Institute of Medicine's (IOM) influential report, *To Err is Human*¹, which underscored for all of the stakeholders in the healthcare system, including the public, the necessity of their involvement in improving safety in medical care delivery. In fact, hospitals, physicians, nurses, employers, health plans, accreditation agencies, and citizens have all taken actions to improve patient safety. These activities have included implementing computerized physician order entry systems; employing dedicated Intensive Care Unit physicians; concurrent drug utilization review and other safe pharmacy practices; and exciting new research initiatives. In addition, dedicated patient safety organizations such as The National Patient Safety Foundation have developed Web sites for relaying reliable information on safety related initiatives for patients, health professionals and hospitals; supported the development of new safety related knowledge; and collaborated with health institutions to facilitate the establishment of a culture of safety for care delivery.

One of the most important developments in patient safety has been the increasing recognition of the importance of evidence-based clinical practice. Evidence-based medicine (EBM) is the explicit integration of the best available scientific evidence into daily medical decision-making. More than that, it implies a culture of reflective, active, objective, and systematic medical practice. EBM encourages healthcare professionals to question their knowledge, consciously consider all options in patient care, seek out the scientific basis and evidence for those options, and integrate this new knowledge into care decisions in a rigorous and consistent manner. EBM also promotes the integration of individual expertise and patient values into the process of medical decision-making.

A potent example of the ability of EBM to improve patient safety was demonstrated by the Agency for Healthcare Research and Quality (AHRQ) report, *Making Health Care Safer: A Critical Analysis of Patient Safety Practices*². This report reviewed the evidence regarding 83 patient safety-related practices currently in use by various components of the health care system. Remarkably, many of these practices are not supported by good evidence. Furthermore, many practices with proven evidence for effectiveness were found not to be routinely used. Clearly more work is needed to identify and adopt initiatives with proven efficacy and weed out practices that are not supported by evidence.

In addition to translating the best evidence into safer health care system level interventions, it is equally important to support the translation of best science into individual clinical practice decisions. The field needs to take an interest in eliminating health care decisions that are unsupported by the best science and therefore increase the likelihood for errors. We should encourage health care professionals to regularly and consciously consider, discuss, and evaluate all options in patient care and evaluate those options based on the best science and the informed guidance of physicians and their professional societies. Training in and access to the tools of EBM will give healthcare teams the information and skills they need to make the best clinical decisions; evaluate specific patient safety interventions and more effectively design and test interventions such as those required by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO).

There are many ways hospital leaders can support and sustain the use of evidence-based medicine, which is an integral component of a “culture of safety”:

- (1) advocate for the use of evidence in making treatment and policy decisions.
- (2) ensure that there is the technical infrastructure necessary to support the daily practice of EBM. In order to practice in an evidence-based manner, clinicians need ready access to the evidence at the point at which clinical decisions are being made. Sources, many of which are available on line, such as Medline; professional medical societies; the Cochrane Database; and the BMJ Publishing Group’s *Clinical Evidence*, are some noteworthy examples of important information that can be made available through hospital intranet and/or internet systems.
- (3) incorporate evidence-based medicine concepts in assessing and evaluating your hospital’s performance in providing safe, high quality care.
- (4) Encourage and help support practitioners and your staff in maintaining current knowledge relative to their area of practice. In addition, assist them in disseminating this knowledge to others within your organization.

In summary, to improve patient safety and the quality of care provided to our patients, we need to decrease clinical practice that varies from good scientific evidence, provide clinicians with ready access to the best possible clinical knowledge to aid in their medical decision-making, and arm them with the tools needed to assess and improve a hospital’s quality and safety systems and interventions. Assisting your physicians in implementing reliable knowledge such as that found in the enclosed copy of *Clinical Evidence* is an important first step in building an evidence-based culture that ultimately leads to better and safer medical care for all the patients treated in your hospital.

1. Kohn KT, Corrigan JM, Donaldson MS, eds. *To Err Is Human: Building a Safer Health System*. Washington, DC: Committee on Quality of Health Care in America, Institute of Medicine, National Academy Press; 1999.
2. Shojania KG, Duncan BW, McDonald KM, Wachter RM, eds. *Making Health Care Safer: A Critical Analysis of Patient Safety Practices*. Rockville, MD: Agency for Healthcare Research and Quality; 2001. Evidence Report/Technology Assessment No. 43; AHRQ publication 01-E058.