

Web Review

Adverse Medical Events: Sites Worth Viewing

MIKE MORALIS

A landmark U.S. report released in November 1999 by the Institute of Medicine (IOM) captured international attention, largely because it said anywhere from 44,000 to 98,000 people a year die in U.S. hospitals as a result of medical errors. The report, *To Err is Human: Building a Safer Health System*, by the Committee on Quality of Health Care in America, noted that errors “can be prevented by making systems that make it hard for people to do the wrong thing and easy for people to do the right thing.”

In September 2000, the U.S. federal Quality Interagency Coordination (QuIC) Task Force sponsored a national summit on medical errors and patient safety. At the summit, Dr. John Eisenberg of the Agency for Healthcare Research and Quality (AHRQ) compared medical errors to an epidemic. The IOM report also found that medical error is one of the leading causes of death and injury, although it said the errors are more due to systemic flaws in the organization of healthcare than from recklessness on the part of physicians or other healthcare professionals.

The literature of industrial quality is filled with jargon that is often dry and academic, with a focus on reducing error to improve productivity and bottom lines. But in healthcare, every process and procedure potentially puts a human life at stake. The IOM report's blunt assessment that more people die annually from medical errors than highway accidents, breast cancer or AIDS was a clear call to action. The report called for a 50% reduction of preventable errors in five years. It outlined a plan to improve quality in healthcare, including mandatory reporting of deaths or serious injuries resulting from medical errors in hospitals, nursing homes, clinics and doctors' offices, as well as voluntary reporting of less serious consequences.

The IOM report was not the first examination of medical errors, or adverse medical events, as they are commonly called.

However, it was one of the most comprehensive examinations, conducted by a prestigious panel that included healthcare quality guru Dr. Donald Berwick, and other highly regarded individuals in healthcare, academia and industry. This contributed to the report's dramatic impact, which included an executive order signed by U.S. President Bill Clinton on Dec. 7, 1999, launching a federal initiative to reduce medical errors and improve patient safety in federally-funded healthcare programs and create pressure for similar action in the private sector.

1. U.S. NATIONAL ACADEMIES www.nationalacademies.org

The U.S. National Academies website has links to testimony regarding medical errors before various committees of the U.S. Senate and Congress. The Institute of Medicine report, *To Err is Human*, has been published as a book, which can be ordered from the National Academies Press or downloaded one chapter at a time.

2. QUALITY INTERAGENCY COORDINATION TASK FORCE www.quic.gov

The Quality Interagency Coordination (QuIC) Task Force was established in 1998 by U.S. President Bill Clinton, in response to a recommendation from the Advisory Commission on Consumer Protection and Quality in the Health Care Industry. In February 2000 it produced an 87-page report entitled “Doing What Counts for Patient Safety: Federal Actions to Reduce Medical Errors and Their Impact.” In partnership with the AHRQ and other organizations, it also sponsored a national summit on medical errors and patient safety research held in September 2000, as well as an open meeting in November. The report and proceedings are all available through the website.

3. U.S. AGENCY FOR HEALTHCARE RESEARCH AND QUALITY
www.ahrq.gov

The U.S. Agency for Healthcare Research and Quality (AHRQ) is focused on research to improve outcomes, quality, cost and utilization of health services, and is the lead agency on medical errors within the QuIC. There is some duplication of information between the two websites, but the AHRQ has more of an emphasis on research and translating research into practice. There are concise backgrounders on the scope of medical errors and tips on how to prevent medical errors. In December, the AHRQ and the Kaiser Family Foundation released results of a national survey indicating that medical errors and malpractice are informal measures of quality for the public.

4. INSTITUTE FOR HEALTHCARE IMPROVEMENT
www.ihl.org

The Institute for Healthcare Improvement (IHI), based in Boston, is a non-profit organization headed by Dr. Don Berwick. IHI was established in 1991 to “accelerate improvement in health care systems in the United States, Canada, and Europe.” IHI’s Breakthrough Series of collaboratives consist of groups of healthcare organizations under the guidance of panels of national experts to improve clinical outcomes and reduce costs. Information from the collaboratives is disseminated through National Congresses. Results from two collaboratives on Reducing Adverse Drug Events and Medical Errors, chaired by Dr. Lucian Leape of the Department of Health Policy and Management at the Harvard School of Public Health, are available on the website as part of the Accelerating Change Today (A.C.T.) – For America’s Health initiative. The February 2000 report “Reducing Medical Errors and Improving Patient Safety: Success Stories from the Front Lines of Medicine” is available as a 36-page report.

5. INSTITUTE FOR SAFE MEDICATION PRACTICES
www.ismp.org

The Institute for Safe Medication Practices (ISMP) is a non-profit organization based in Pennsylvania. Its focus is primarily on education of consumers and healthcare professionals regarding adverse drug events or medication errors and their prevention. It says it is dedicated to “the safe use of medications through improvements in drug distribution, naming, packaging, labeling and delivery system design.” The ISMP Medication Safety Alert! is a biweekly fax or e-mail notification about medication and device errors as well as adverse drug reactions. It has a useful FAQ (Frequently Asked Questions). President Michael Cohen is the editor of a book, *Medication Errors*, published by the American Pharmaceutical Association, which can be ordered from the site.

6. ISMP CANADA
www.ismp-canada.org

ISMP Canada is a recently established sister organization to the one in the United States, with parallel goals and objectives. The intent is for it to become “a national resource for promoting safe medication practices” for the national healthcare community. David U, Manager of Pharmacy at Toronto’s Centre for Addiction and Mental Health (Queen Street site) was the main driving force behind the creation of ISMP Canada. He has become the president and CEO, and a prestigious board of directors has been assembled.

7. AUSTRALIAN PATIENT SAFETY FOUNDATION
www.apsf.net.au

The Australian Patient Safety Foundation (APSF) is devoted to the reduction of iatrogenic or physician-induced injury in



In Canada, the Colleges of Physicians and Surgeons in Alberta and Saskatchewan have both reacted to the growing concerns about medical errors. In Alberta, registrar Larry Ohlhauser brought the issue to the college in the Fall of 2000. Saskatchewan’s college held a conference on medical errors in October 2000, and the Ontario Hospital Association held a similar conference in January 2001.

Medication errors, defined as errors in the medication process, are said to be 50-100 times more prevalent than adverse drug events, but can be significantly reduced through automation. Toronto-based AUTROS Healthcare Solutions Inc. (www.autros.com) has taken an international leadership position on the basis of its leading-edge wireless barcode technology to track and monitor prescription ordering, dispensing and administration, which is being marketed as one way of reducing medication errors.



Australian healthcare. The APSF was incorporated in the wake of a 1987 symposium of anesthetists concerned about patient safety and monitoring. The scope has gradually expanded to include working groups dealing with issues such as medication safety, falls in healthcare institutions, patient information, post-operative nausea and vomiting and obstetric analgesia.

8. U.S. PHARMACOPEIA www.usp.org


The U.S. Pharmacopeia (USP), established in 1820, is a private, voluntary, not-for-profit organization in Maryland that establishes and disseminates “officially recognized standards of quality and authoritative information for the use of medicines and other healthcare technologies by healthcare professionals, patients and consumers.” Since 1991, USP has collaborated with the non-profit Institute for Safe Medication Practices to provide a forum for voluntary, confidential reporting through the Medication Errors Reporting Program (MERP). The two organizations collaborate with the U.S. Food and Drug Administration (FDA) as partners in the MedWatch program. USP is also a founding member of the National Coordinating Council for Medication Error Reporting and Prevention (NCC MERP). In April 2000 USP launched its annual Report on Medication Errors reported through MedMARx™, a national, standardized, Internet-based anonymous medication error reporting and tracking tool designed to support the development of best practices. The first annual MedMARx report, was

released in December, and is available on the USP web site. The 30-page document indicates that of 6,224 potential and actual reported errors, 6,037 or 97% did not result in harm to patients. Navigating the website is frustrating, as is printing pages in frames, but the content is valuable.

9. JOINT COMMISSION ON ACCREDITATION OF HEALTH ORGANIZATIONS www.jcaho.org

The Joint Commission on Accreditation of Health Organizations (JCAHO) has stressed the need for risk management through its sentinel events policy for accredited organizations. Since the mid-1990s, the JCAHO has produced a variety of resources aimed at the reduction of adverse events, including a 208-page book entitled *First Do No Harm: A Practical Guide to Medication Safety and JCAHO Compliance* that can be ordered from the website.

10. MEDERRORS.COM www.mederrors.com

The mederrors.com website is dedicated to sharing information from U.S. hospitals about medication errors and adverse drug reactions, with a less academic tone than many others. It is “intended as a useful link to experts in the fields of medication error and adverse drug event prevention and continuous quality improvement.” The site includes some useful resources including a library and bulletin board, and features the first in a planned series of case studies for continuing education. The site is sponsored by Bridge Medical, Inc. of California, which like Autros is concentrating on computerization and automation of the medication process. 

Mike Moralis is a policy analyst with the Ontario Hospital Association.

An estimated 6-10% of hospital patients experience an adverse drug event, or ADE, defined as an injury related to the use or non-use of medication. An estimated one-third to one-half of ADEs are believed to result from errors, and would therefore be preventable. In January 1997, the Journal of the American Medical Association published findings of several studies indicating that anywhere from 770,000 and two million hospital patients annually experience ADEs: respiratory arrest, kidney failure, bleeding, rashes and itching, diarrhea and vomiting. The total cost of these events was estimated to be as high as \$4.2 billion.