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Medical Errors—An Ounce of Prevention Is Worth a Pound of Cure

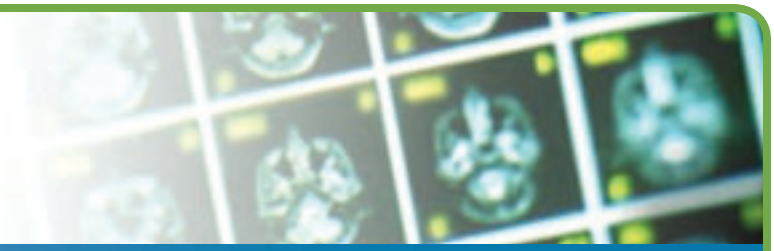
by Christina J. Ansted, MPH

Medical errors are one of the nation's leading causes of death and injury. A November 1999 report by the Institute of Medicine (IOM) titled "To Err is Human: Building a Safer Health System"[1] estimates that as many as 44,000 to 98,000 people die in U.S. hospitals each year as the result of medical errors. Even using the lower estimate, this would make medical errors the eighth leading cause of death in this country—higher than motor vehicle accidents (43,458), breast cancer (42,297), or AIDS (16,516). About 7,000 people per year are estimated to die from medication errors alone—about 16 percent more deaths than the number attributable to work-related injuries.[2]

The IOM report carried four core messages: first, the magnitude of harm that results from medical errors is great; second, errors result largely from systems failures, not people failures; third, voluntary and mandatory reporting programs are needed; and fourth, a concerted national effort is needed now to improve patient safety.[3] The Institute of Medicine landmark report resonated throughout the healthcare industry as well as with Congress and state legislatures. Medical errors carry a high financial cost. The IOM report estimates that medical errors cost the nation approximately $37.6 billion each year; about $17 billion of those costs are associated with preventable errors and about half of the expenditures for preventable medical errors are for direct healthcare costs.[2] Various state legislatures began to require continuing medical education courses on risk management. To date, California, Texas, and Florida have passed regulations or statutes that require a quality assurance program for each hospital and community pharmacy within their state.[4] Florida created a specific two-hour course on "Medical Error Prevention" that all physicians must now take every two years.[5]

In 2001, the Institute of Medicine published a follow-up to "To Err is Human," titled "Crossing the Quality Chasm: A New Health System for the 21st Century." This report described broader quality issues and defined six aims for improvement (care should be safe, effective, patient-centered, timely, efficient, and equitable) and 10 rules for care delivery redesign (care is based on continuous healing relationships; care is customized according to patient needs and values; the patient is the source of control; knowledge is shared and information flows freely; decision making is evidence-based; safety is a system property; transparency is necessary; needs are anticipated; waste is continuously decreased; and cooperation among clinicians is a priority).[6]

Since 1992, the Food and Drug Administration has received about 20,000 reports of medication errors. These are voluntary reports, so the number of medication errors that actually occur is thought to be much higher.[7] Despite progress toward improvement, look-alike/sound-alike drugs remain serious issues, as does pharmacy continuity of care.[8] Retail pharmacies play a major role in filling prescriptions for patients and educating them about their use.[6] In collaboration with physicians and other health professionals, pharmacists are in a unique position to prevent medical errors associated with dosing and with erroneous dispensing of similarly named drugs, and to corroborate that the medication prescribed not only is indicated for the patient, but likely won't be the cause of an adverse reaction.

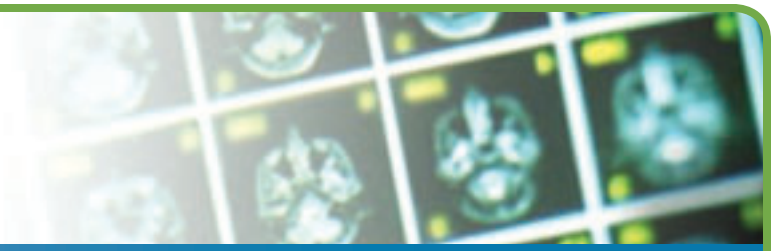


Confusion caused by similar drug names accounts for up to 25 percent of all errors reported to the Medication Error Reporting Program operated cooperatively by U.S. Pharmacopeia (USP) and the Institute for Safe Medication Practices (ISMP). In addition, labeling and packaging issues were cited as the cause of 33 percent of errors, including 30 percent of fatalities, reported to the program.[9] In a study by the FDA that evaluated reports of fatal medication errors from 1993 to 1998, the most common error involving medications was related to administration of an improper dose of medicine, accounting for 41% of fatal medication errors. Giving the wrong drug and using the wrong route of administration each accounted for 16% of the errors.[10]

Medication safety continues its priority placement in two explicit 2007 National Patient Safety Goals (NPSG) from The Joint Commission on the Accreditation of Healthcare Organizations (JCAHO): Goals 3 and 8. Goal 3 is to improve the safety of using medications, and Goal 8 is to accurately and completely reconcile medications across the continuum of care.[8] The JCAHO 2009 national patient safety goals included the addition of Goal 2 in 2008, which aimed to improve the effectiveness of communication among caregivers.[11] While no new patient safety goals have been developed for 2010, on January 1, 2010, organizations will be expected to have fully implemented the requirements related to healthcare-associated infections (which were established with the 2009 NPSGs).[12]

In August of 2009, The Joint Commission issued a "Sentinel Event Alert," detailing 14 specific steps geared toward urging healthcare leaders to step up efforts to prevent errors by taking the "zero-defect" approach used in other high-risk industries such as aviation and nuclear energy. The Joint Commission is advocating greater involvement of healthcare trustees, executives, and physician leaders, contending that the overall safety and effectiveness of a healthcare facility depends on administrative and clinical leaders who set the tone, create the culture, and drive improvements. In safe organizations, safety is rooted in the culture and the system rather than in the behavior of individuals.[13]

Healthcare professionals need to develop and maintain an ongoing process that uncovers potential risks while promoting ways to eradicate vulnerability to error. In order to accomplish these tasks, the system needs to provide resources to monitor and evaluate errors, and to implement methods to reduce them.[4] Physicians, pharmacists, nursing staff, and other related hospital and community pharmacy personnel must work together to help make the U.S. healthcare system safer for patients and the public.



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