Computerized Order Entry Can Lead to New Mistakes

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Computerized physician order entry has been hailed as a breakthrough for reducing medication errors, but the systems can introduce new types of mistakes that can themselves lead to adverse drug reactions and other errors, according to research conducted by Dr. Kathleen E. Walsh of the University of Massachusetts, Boston, and her colleagues.

The investigators sought to determine the rates and incidence of computerized physician order entry (CPOE) in pediatrics, noting that computer-related errors are the fourth leading cause of medication errors, according to the U.S. Pharmacopeia's MedMARx system (Pediatrics. 2006; 118:1872-9).

The rate of computer-related errors was 10 per 1,000 patient days; the rate for serious computer-related errors was 3.6 per 1,000 inpatient days.

Their review looked at use of CPOE over a 9-month period in a single urban teaching hospital with 40 general and surgical pediatric inpatient beds, 4 pediatric intensive care unit beds, and 15 neonatal intensive care unit beds. (The emergency department, operating room, and postanesthesia care unit were not included in the study because they did not have the system.) Only residents could write and enter orders.

Forty patients per month were randomly selected. Reviews of the charts, hospital incident reports, and order-entry logs were done by two pediatric nurses and then two physicians. Overall, they reviewed 352 of 975 PICU, NICU, and inpatient ward admissions and 6,916 medication orders.

The researchers detected 104 errors, of which 20 were computer-related. Seven were serious medication errors, and 13 were errors with little potential for harm. The rate of computer-related errors was 10 per 1,000 patient-days; the rate for serious computer-related errors was 3.6 per 1,000 patient-days.

Two of the serious errors were duplicate medication orders, four were menu selection errors, and one was a serious keypad entry error. There were eight order set errors, none serious.

Three of the 7 serious errors were orders for ceftriaxone overdoses that generated alerts, but physicians overrode the alerts. None of the computer-related errors reached a patient.

They concluded that the rate of serious medication errors in their study was slightly higher than that found in similar studies. The researchers found fewer types of errors than had been previously reported, but, they said, "our findings do support the assertion that problems with the human-machine interface can pose a risk to patients."

The study was limited by the fact that it was done in a single hospital that relied on a single order-entry system. But some design features are similar across different software programs, the authors said. ■

When It Comes to Liability, Health IT Is Still a Double-Edged Sword

WASHINGTON — From a liability perspective, health information technology remains a double-edged sword whose parameters still need to be spelled out, experts said at a meeting sponsored by eHealth Initiative and Bridges to Excellence.

"It's going to provide protection in some places and increase liability in others," said attorney Marcy Wilder, a partner with Hogan & Hartson.

When it comes to electronic clinical decision support (CDS) tools, Jud DeLoss, vice chair of the HIT Practice Group at the American Health Lawyers Association, recommended that physicians document their reasoning when they disregard the tool's suggestion.

Although it would be "difficult to pull off," attorneys could create a class of victims for whom they argue that clinical decision support was not followed, leading to detrimental results, he said. Conversely, attorneys could charge that a physician overly relied on the tool "and did not actually engage in the care they said they did."

Another gray area created by HIT: delineating who contributed what sections to a patient's electronic health record.

"Look at the paper system," Ms. Wilder said. "We have handwriting and signatures, which are simple tools to identify who's responsible for which clinical applications, which provider made the diagnosis, who authorized the medication change. It is both easier and more difficult to do that with electronic health records."

Although systems are in place to address identity authentication in health care institutions, problems may arise when data from shared information warehouses such as a regional health information organization are incorporated into an electronic medical record, Ms. Wilder said.

"That's where it's going to be very messy, and I think it will be a long time before we are going to be using shared data warehouses in part because of those kinds of liability issues," she said.

Physicians also are concerned about the validity of the portion of an electronic medical record that they did not make. Mr. DeLoss said the concern is that physicians might inadvertently end up becoming part of a malpractice suit by signing off on their portion of a medical record that also includes an entry by a physician who has a pending malpractice case

—Nellie Bristol

POLICY & PRACTICE

Ex-FDA Chief Pleads Guilty

Former Food and Drug Administration Commissioner Lester M. Crawford, D.V.M., has pleaded guilty to lying about stock he held during his tenure, in violation of federal conflict-of-interest and stock ownership rules. Dr. Crawford was charged with two misdemeanors and is scheduled to be sentenced Jan. 22 in Federal District Court in Washington. He could receive a year in prison and could be fined $200,000. According to the plea, Dr. Crawford failed to sell shares in Sysco, Pepsico, and Kimberly-Clark, all of which have products that are regulated by the FDA. Federal rules require senior officials to divest shares in companies that their agency regulates. Dr. Crawford also did not disclose his wife's ownership of Wal-Mart stock. Dr. Crawford was charged with conflict of interest for owning the Pepsico and Sysco shares while he was chairman of FDA's Obesity Working Group. Rep. Maurice Hinchey (D-N.Y.) said he will push for a completion of an Office of Inspector General inquiry into Dr. Crawford's resignation and financial holdings. "Based on Lester Crawford's apparent disregard for the law, we must find out what other improper actions he took while leading the FDA, which may not necessarily have been illegal, but were inappropriate or unethical," Rep. Hinchey said in a statement.

P4P For Small Practices

The Centers for Medicare and Medicaid Services is seeking 800 solo and small- to medium-sized group practices to participate in a pilot pay-for-performance project. The 3-year pilot, called the Medicare Care Management Performance Demonstration, is limited to practices in Arkansas, California, Massachusetts, and Utah that are the main providers of primary care to at least 50 Medicare beneficiaries. Physicians will be required to submit data each year on up to 26 quality measures in diabetes, heart failure, coronary artery disease, and preventive care. During the first year, participating physicians will be paid for reporting baseline information. In the 2 succeeding years, practices will submit quality data; they can earn up to $10,000 per physician or up to $50,000 per practice for meeting the benchmarks, which have been endorsed by the National Quality Forum. The measures are similar to those being used in Medicare's Physician Voluntary Reporting Program. At the end of the 3-year project, CMS and the Agency for Healthcare Research and Quality will review the impact on patient outcomes and Medicare expenditures. For more information, go to www.cms.hhs.gov/DemoProjectsEvalRpts/MD/list.asp.

CMS Curbs Improper Claims

Medicare's on track in 2006 to further reduce the number of fraudulent and inappropriate claims being submitted. CMS is reporting that 4% of claims were improper in 2006, down from 5% the previous year and from 14% in 1996, leading to $11 billion less in improper payments over the last 2 years. To determine the error rate, CMS randomly sampled 160,000 claims submitted from April 2005 to March 2006. Since it has been able to more closely identify errors, CMS has been providing more accurate information to contractors, resulting in improved system edits and updated coverage policies, the agency said in a statement. "I welcome the news that the government's increased attention to oversight of Medicare payments has paid off," Sen. Chuck Grassley (R-Iowa), chairman of the committee charged with Medicare oversight, said in a statement. He added that CMS has work to do, as it is "still paying for medically unnecessary services and undocumented or poorly documented services."

Wal-Mart Expands Generic Access

Wal-Mart has expanded its $4 generic drug program to an additional 14 states. The program, which was launched in September in Florida, covers 30-day supplies of generic drugs at commonly prescribed dosages and includes 314 generic drugs including 143 compounds in 24 therapeutic categories. Wal-Mart had originally planned to pilot the program in Florida and roll it out to additional states sometime next year, but accelerated expansion due to consumer demand. The move by Wal-Mart is likely to be good for the company's bottom line, according to the results of a Wall Street Journal Online/ Harris Interactive poll. The poll of 2,493 adults found that currently only 13% of adults most often purchase drugs from a discount store like Wal-Mart or Target. However, when told about the availability of discounted generic drugs, 50% of respondents said they would be likely, very likely, or absolutely certain to fill their prescriptions for generic drugs from discount retailers. The program is now available at Wal-Mart stores in Alaska, Arizona, Arkansas, Delaware, Florida, Illinois, Indiana, Nevada, New Jersey, New Mexico, New York, North Carolina, Oregon, Texas, and Vermont.

McClellan Accepts Think Tank Post

Former Medicare Chief Mark McClellan has accepted a new post as a visiting senior fellow with the AEI-Brookings Joint Center for Regulatory Studies in Washington. The new job will keep Dr. McClellan involved in health care policy issues. He also will remain as an associate professor of economics and an associate professor of medicine at Stanford (Calif.) University. Dr. McClellan had been on leave from Stanford for several years while working in the federal government. Before taking the post as administrator of the Centers for Medicare and Medicaid Services, Dr. McClellan served from 2002 to 2004 as the commissioner of the Food and Drug Administration. He also served as an economic and health care advisor to President Bush from 2001 to 2002.

—Alicia Ault