ICU
MANAGEMENT & PRACTICE

Electronic Health Records Need Better Monitoring, Experts Urge

To improve monitoring, Dean Sittig, Ph.D., lead author and associate professor at The University of Texas School of Health Information Sciences at Houston (SHIS), has called for coordinated oversight by both the healthcare providers implementing these systems and by government authorities.

Doctors and hospitals are racing to take advantage of billions in federal incentives to digitize health records, Sittig said. The monies were included in the American Recovery and Reinvestment Act of 2009 (ARRA). "The ARRA stimulus is pushing people to take risks," Sittig said. "It's like life. If you're late for work, you may drive a little faster than you should. This can lead to accidents."

Even under the best of circumstances, according to Sittig, implementing an electronic health record system is difficult, costly, time-consuming and fraught with unintended adverse consequences. Evaluation of these systems following implementation shows that some do not meet safety standards established in other industries like the airline and pharmaceutical industries, he said.

Borrowing from the safety practices of other industries, Sittig and his co-author, David Classen, M.D., associate professor of medicine at the University of Utah School of Medicine, have created a five-stage proposal to monitor and evaluate these systems.

1. Report electronic health record safety issues -- Currently, it is unclear who a healthcare practitioner would call to report a problem with an electronic health record system. According to Sittig, some electronic health record vendors discourage the release of such information. A reporting system could be created under the new Patient Safety Organizational Statute utilizing Agency for Healthcare Research and Quality reporting formats.

2. Enhance electronic health record certification - Vendors developing the software should be required to "demonstrate that their applications have been designed for safety, developed correctly, work as designed and had all their defects fixed," Sittig said.

3. Encourage self assessment of electronic health record use - Each organization should perform and document an extensive review of its clinical information systems on a yearly basis. This review should include hardware and software, clinical content, user interfaces, user training and authorization procedures, clinical workflow and communication, organizational policies and procedures, compliance with state and federal rules and regulations, and periodic measurements of system activity.

4. Conduct unannounced on-site inspections -- Sittig and Classen propose random, on-site inspections by The Joint Commission, a not-for-profit organization that accredits and certifies healthcare organizations and programs, or local health departments.

5. Implement national electronic health record adverse event investigation board - Much like the National Transportation Safety Board investigates accidents, the Office of the National Coordinator for Health Information Technology could create a board to investigate electronic health record problems, Sittig said.

"President Obama has taken an important step toward improving the clinical computing infrastructure of the U.S. healthcare delivery system by stating the goal of all citizens having access to an electronic health record. However, the extremely aggressive timeline in the ARRA stimulus package places enormous pressure on healthcare practitioners and their organizations to rapidly implement electronic health records. Such rapid implementations could lead to significant patient safety events," write Sittig and Classen in the paper.

Under the direction of Jiajie Zhang, Ph.D., Doris L. Ross Professor and associate dean for research at the UT School of Health Information Sciences at Houston, Sittig and his colleagues recently submitted a cutting-edge, $18 million proposal to the Office of the National Coordinator for Health Information Technology to begin addressing electronic health record system design and implementation issues. The proposal involves eight institutions and more than 50 investigators. Sittig is a member of the University of Texas-Memorial Hermann Center for Healthcare Quality and Safety.

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