Portable Electronic Medical Records Are Closer to Reality, But Not Without Hitches

By Karyn Hede

A lthough banking, insurance, and real estate have eagerly embraced electronic record keeping, most hospitals and physician practices have by and large clung to paper patient records. A recent survey by the Centers for Disease Control and Prevention’s National Center for Health Statistics indicated that only one-fourth of office-based physicians currently have an electronic medical record-keeping system. But that may change soon as the federal government and private insurers provide incentives to physicians to make the conversion from paper to digital record keeping.

Using a model similar to secure credit card Web portals, easy-to-use and portable medical records are just around the corner, say medical information leaders. In recent months several models have emerged to test whether electronic health records (EHRs) can work. Although supporters tout EHRs as a time and money saver that reduces medical errors, some physicians have been burned by unwieldy systems before and are taking a wait-and-see approach this time.

Two Steps Forward, One Back

The first major push for electronic medical records began in 1999 with an Institute of Medicine report that said conversion to EHRs could both substantially reduce the 98,000 preventable deaths that occur each year and save money.

New Hampshire Oncology Hematology P.A., a private physician group in Hooksett, N.H., was an early adopter of EHRs. The private practice switched from paper records to an electronic system 7 years ago, only to reverse course and go back to paper records 2 years later. The doctors found themselves printing out information because the patient record system wasn’t compatible with their scheduling system.

“Entry of information was very tedious,” said Charles Catcher, M.D., a partner in the practice. “It would take us a long time to enter the data, and our docs weren’t very happy with it. We had to abandon it because it was destroying our quality of life.”

The groups experience illustrates perhaps the largest stumbling block to truly portable EHRs: the absence of a uniform set of operating standards. Without such standards, private vendors have developed their own systems that often cannot communicate with each other.

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“Ultimately we are going to get to a network of networks,” Halamka said. “For example, the way the Visa or Mastercard network grew, suddenly you had the ability for multiple banks to talk to each other.” While communication among Massachusetts health care providers is good, he conceded that “if you want to send Massachusetts data to, say, the Bronx, you can’t do it. You have to print it out on paper.”

The biggest challenge will be funding, according to Halamka. The Massachusetts model works because payers and providers funded it. The price tag to fully connect all providers in the state is estimated at $500 million, and so far, $50 million has been raised to connect providers to the network city by city.

“If you look across the country, how many communities have the funding to sustain...
this network of networks?” he asked. “At the moment there is just not enough funding to support this on a nationwide scale.”

**Setting the Bar**

At the University of Pittsburgh Medical Center, administrators are building their own system through a series of pricey collaborative deals with business partners designed to bring the medical center’s 19 hospitals, 400 physician offices, and ancillary services providers under one umbrella. The challenge to a smooth operation, according to Daniel Martich, M.D., chief medical information officer for UPMC, is making information from more than 120 vendors flow back and forth from one system to another.

UPMC has invested in both a $402 million deal with IBM to revamp the data centers and a $300 million deal with Alcatel to overhaul the center’s network infrastructure. Most recently, it signed an $84 million initiative with Israel-based dbMotion to create a truly compatible system. Martich says the investments, although larger than most in the healthcare industry, are tiny by comparison with what other industries invest in their information technology infrastructure.

“When you think about the health care industry and compare it to banking or to telecom, we are near the bottom in spending and have been near the bottom since information technology came into play,” Martich said. “If we spent on information technology what the airline industry does, I suspect we’d be in better shape. We can justify [our spending] pretty well. We believe it is about patient safety and patient care. … It’s built of necessity and it’s something we all believe in.”

Similar changes are under way in hospital systems in California, Indiana, New York, Tennessee, and Illinois, among others.

For example, Loyola University Health System in Chicago just completed converting 60 outpatient clinics to an EHR system, a process that has been somewhat painful for physicians making the transition.

“The [physicians are] in their highly productive middle years, they’ve spent the last 20 years of their practice optimizing their patient work flow, and now you blow it all up on them,” said Arthur Krumrey, vice president and chief information officer at Loyola. “It’s a big change and that’s why we made physician usability our number-one criterion.”

Krumrey said that all clinics undergoing the changeover had some drop in productivity initially but that all have returned to their prior level. The system is reducing errors, making records readable, and improving patient care.

Both Krumrey and Martich caution that while federal standards are helpful, it will be many years before seamless compatibility can be achieved. That means each health care market is still creating its own system, which is unlikely to be compatible with other systems. And for community-based providers, it may take even longer.

Catcher concedes that the health care system is moving toward EHRs, and his practice is now in the process of reevaluating them, having narrowed their choices to two systems. But getting to this point required hiring a consultant to evaluate more than 150 systems. A small group of doctors from the New Hampshire group will visit two practices using the systems to evaluate their ease of use and utility for an oncology practice. Catcher said that his practice, having made a million-dollar mistake once, is using extreme caution this time around.

“Considering only 30%–40% of oncology practices have [electronic medical records] and, of those, very few can ever communicate and with all the firewalls, it’s going to be a very big challenge,” Catcher said.