

Electronic Medical and Health Records

What are they
and how will
they change
health care?

By Greg Burt

Many healthcare providers, including some forward thinking hospitals and physicians on Long Island, have taken steps toward bringing medical record-keeping into the electronic age.

The bulk of medical records remain on paper, a system that limits access to vital information when it's most needed, leads to errors, needlessly multiplies procedures and prescriptions and generally contributes to the high cost of health care, health experts say.

Part of the Obama administration's drive to reform healthcare will be about taking the nation's medical records digital. The immediate goal is to convert the record-keeping methods of individual doctors, hospitals and other healthcare providers to Electronic Medical Records (EMRs). An EMR is a digitized legal record kept by a single health care provider containing the history of a patient's encounter with that doctor or hospital.

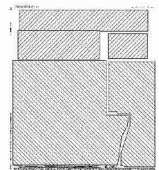
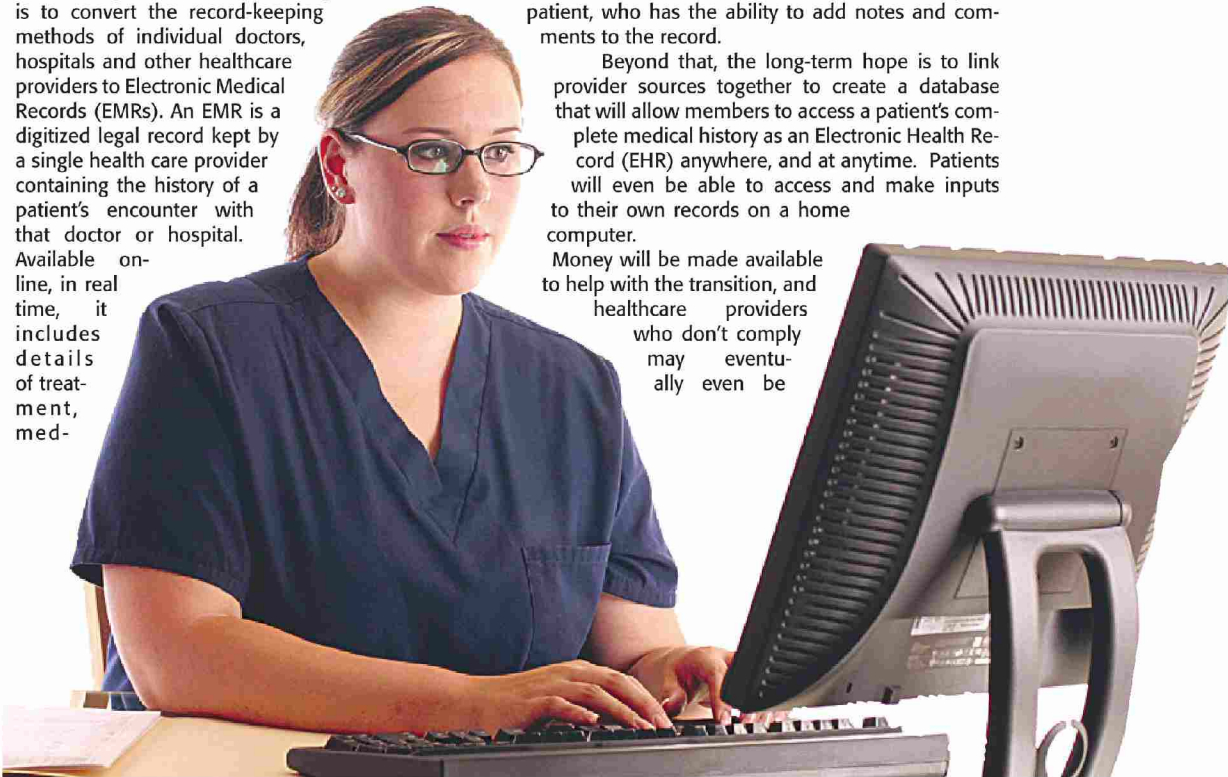
Available online, in real time, it includes details of treatment, medication

and test results. The EMR is owned by the health care provider.

Widespread use of EMRs will provide the basis for the next step, the creation of Electronic Health Records, or EHRs, which represent the electronic sharing of medical information. EHRs allow information to follow a patient through various episodes of care from multiple health care providers over extended periods of time. The EHR supports decision making to improve the quality and safety of treatment and delivers information without hindering the routine of the doctor whose primary responsibility is to provide care, not to record information. The EHR is owned by the patient, who has the ability to add notes and comments to the record.

Beyond that, the long-term hope is to link provider sources together to create a database that will allow members to access a patient's complete medical history as an Electronic Health Record (EHR) anywhere, and at anytime. Patients will even be able to access and make inputs to their own records on a home computer.

Money will be made available to help with the transition, and healthcare providers who don't comply may eventually even be



penalized. But although funds haven't yet begun to flow from Washington, Long Island hospitals are already taking the lead in this initiative.

One large group, North Shore-LIJ Health System announced a \$400-million dollar initiative that will provide cash directly to doctors to help them make the jump to digital record keeping. Other area hospitals, including Stony Brook and Winthrop University hospitals have also made substantial commitments to the effort. Organizations like the Long Island Patient Information Exchange (LIPIX) are gearing up to link regional databases as they are built. The effect over the next few years is expected to radically change and much improve the doctor/patient experience as well as healthcare outcomes.

WHAT THE CURRENT SYSTEM IS NOT DOING

Kevin Dahill, CEO of The Nassau Suffolk Hospital Council (NSHC), says the measures being taken here will fundamentally remake healthcare for Long Islanders. NSHC represents 23 member hospitals which serve 2.8 million people in Nassau and Suffolk counties.

Dahill says the duplication of efforts and the storage of patient information in multiple locations are among the biggest problems with the current system.

"Patients get asked the same questions again and again," he said, "but the information doesn't follow them. Most times when a patient is treated, the doctor is operating with less than optimal information."

Citing medication records as an area that needs improvement, Dahill outlined a possible scenario: "Say a doctor changes a patient's prescription.

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That evening, the patient gets admitted to a hospital emergency room, unconscious. The hospital doesn't know what medications the patient has been taking, and the patient can't tell them. Information that could mean life or death is locked in the doctor's office."

He also pointed out that some older patients may be taking 6 or more different medications and dosages. When asked to list them, he said, it's entirely possible they may not be able to. If a doctor doesn't know, he could feasibly make a decision that could be harmful. Dahill said, "We need to be able, in a seamless way, to pull all that compartmentalized information together -- to have one book in order to be able to make better decisions and better and more reasonable interventions."

Dahill sees broad electronic access to medical information as a benefit similar to the access to one's money provided by ATMs. Your medical information belongs to you, he added, so access to that information will have to have built-in privacy and protections like those that protect your money.

LI HOSPITALS GEAR UP FOR THE CHANGE

Dahill said that Long Island hospitals have come to recognize that electronic record keeping is the inevitable way to go. "This is not a technology issue," he said, because the technology already exists. "It's a strategic issue and a cultural change."

The first step, digitizing records, he said, will be simpler for large organizations, like major hospitals, than for individual doctors in private practice who may have been doing things the old way for many years. But the pressure is there for physicians to jump on board, he points out. Funds are being provided and the government has even said it may deny Medicare reimbursement to doctors who don't comply within a specified time.

NORTH SHORE UNIVERSITY HOSPITAL

A huge incentive is being provided by North Shore-LIJ who will pay at least half the cost of installing electronic record keeping systems for as many as 7,000 area physicians. Doctors who further agree to share data on treatment outcomes can receive as much as 85 percent of those costs. North Shore would use that information to compile a database of which

...TREATMENTS YIELD THE BEST RESULTS.

treatments yield the best results. Dr. Ken Abrams, a physician at North Shore, is in the forefront of the initiative. The sharing of treatment outcomes, he said, will help to develop a big picture that will make it possible to achieve optimum care. Being able to look at results in the aggregate and see what worked will eliminate procedures and medications that don't.

"The goal," Abrams said, "is to be able to manage the health of an individual and a population by developing a set of practice parameters." He gave the example of an individual with high cholesterol. "You want to know what it's going to take to get that person to the [lower] target level. We'll be able to look at a population of patients from among our member doctors and see who got there and what it took to produce the desired results. Low back pain is another area where a lot of treatment given doesn't provide good results. And why are some people frequently re-admitted to the hospital for a specific condition while others with the same condition are not? A doctor can tell you how one patient is doing, but he can't tell you about a thousand, because he doesn't have the information available."

WINTHROP-UNIVERSITY HOSPITAL

Winthrop-University Hospital is a 591-bed teaching hospital located in Mineola, that's been a leading

healthcare provider for more than a century. Winthrop has been implementing IT improvements to its system for several years. John F. Collins, President and CEO of Winthrop said, "broadly speaking, the high cost of



healthcare is caused by inefficiency." But beyond dollars, he adds, the old way of doing things was costing lives. Handwritten notes, for instance, allow for all kinds of errors. He cites an Institute of Medicine report in 1999 which stated that as many as 98,000 deaths were occurring annually in hospitals due to medication errors. Partly as a result of that report, Winthrop has invested more than \$25 million in patient safety.

One of the most significant improvements has been the institution of CPOE or Computerized Provider Order Entry, which eliminates errors associated

with handwriting legibility and the movement of paper. "It's a point and click technology," Collins said. "The doctor comes out of the operating room, goes to a computer and pulls down a list of medications from which he picks the right one for the patient. The hospital pharmacy automatically gets the order for the drug, which goes to the nurse on the floor and the patient gets the right medication." Collins says 95 percent of hospitals still don't have this simple modernization in place.

Maureen Gaffney, Chief Medical Information Officer at Winthrop said the healthcare system needs to become more "patient centric" rather than "location centric," which leads to errors and redundancies. One example of patient-centric record keeping is a repository of a patient's medications lists which is connected to a "patient portal," an IT innovation Winthrop is pioneering. A patient can sign in on a home computer to a program that's password protected for security. "Say you've just started to take a new over-the-counter vitamin," Gaffney offered as an example. "You'd add that information to your record, so that your doctor would see it at your next visit."

Gaffney cautions that many hospitals and doctors initially fail with digital implementation by using an "out-of-the-box" system. "You need to proceed with caution and customize the application to the environment," she said. "It's an exciting time for healthcare but a scary time too. Technology alone does not save lives – it's safe practice supported by technology that saves lives." >>>

