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Electronic medical records enter doctors' offices

Doctors and patients connected

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There are three partners in the room now, says Dr. Lawrence D. Garber.

The Fallon Clinic's medical director for informatics means the patient, the doctor and the computer. Now every exam room of the 240-doctor organization has a computer that can summon a patient's electronic medical record, or EMR.

After \$24 million and many years of preparation — Dr. Garber says all of his 21 years at Fallon have been leading up to this — paper records in their colorful folders are now destined for storage at a distant site. Their handwritten notes and lab results and X-rays and hospital discharge notices have all been translated or scanned into password-protected encrypted computer files accessible to eligible clinicians. Some time next year, even patients will be able to log on, e-mail their doctors, schedule appointments and read test results.

But for now, the new player in the exam room is the screen that can swivel out to be read by a patient wearing a johnny on the tissue-paper-covered exam table while a doctor can keep a keyboard in his or her lap. That screen can graph blood sugar levels as they climb up or creep down. It gives a history of prescriptions ordered and filled, it reports lab results and shows X-rays or EKGs. The doctor can pull up information on heartburn and print it out with instructions for follow-up care that the patient can take home.

"It allows patients to participate more in their care," Dr. Garber said. "If you understand what's going on with your health, it's usually easier to participate."

Fallon Clinic, with its 1 million patient visits a year, illustrates what happens when a health care organization integrates information on its patients into a record that can be retrieved over the Internet by clinicians involved in their care. The multi-specialty group practice faces different challenges and opportunities in converting to computerized records than a small practice without a team devoted to the change. And for organizations that see patients only in their homes, yet other needs must be met.

For every practice, large or small, there are also differences among programs and as yet no overarching system to connect separate entities to one another. An exchange called SAFEHealth is a work in progress to connect Worcester's two hospitals, the Fallon Clinic and other groups. Fallon Clinic now has a computer in the St. Vincent Hospital emergency department on which its patients' EMRs are accessible, but a connection to UMass Memorial is still in the works, Dr. Garber said.

UMass Memorial Health Care is also working toward adopting EMRs across its system as part of a five-year technology initiative.

According to a report by the Healthcare Information Management and Systems Society, 24 percent of health care organizations in the country have fully operational EMR systems. About 200 physician practices



Dr Lawrence Garber, left, Fallon Clinic's medical director for informatics, demonstrates use of the new electronic medical records system with Fallon receptionist Lynn Guild. (T&G Staff/JIM COLLINS)

jumped on the EMR train in 2004 when the Massachusetts eHealth Collaborative, with funds from Blue Cross Blue Shield of Massachusetts, rolled out EMRs in Brockton, Newburyport and North Adams. The communities are connected within their own borders, but when the 25 percent of patients in Brockton, for example, who seek care in Boston go there, their records can't follow them, eHealth president and CEO Micky Tripathi said.

But those practices are a start, like local telephone services before the long-distance providers connect them to the larger grid.

"One of the lessons we have learned is that it's much harder than everyone thinks it is" to convert physicians' offices, Mr. Tripathi said.

Dr. George Abraham, medical director of the Central Massachusetts Independent Physician Association, said his group has tried to ease the pain and the expense by offering grants to its members to encourage electronic prescribing and high-speed Internet access. The organization also provides secure physician-to-physician e-mail and a data warehouse for lab results, prescription data and diagnostic data.

"Cost is only one issue," he said, pointing out that EMRs "enhance care tremendously. You can give much more meaningful patient care."

EMRs contain prescribing programs that alert clinicians to potential drug interactions and allergies that might harm a patient. The patient's history, which for Fallon goes back 15 years, may reveal a pattern that is important to care.

Dr. Garber has already seen a man whose PSA level, a marker for prostate cancer, was in the normal range, but when he entered the number on a graph to chart his past results, it clearly showed a steady increase. It turned out the man had cancer.

"Not monitoring test results is what causes the most errors," he said. "Now (the patient's record) is no longer a snapshot on a piece of paper."

One of Dr. Garber's patients is watching his blood sugar trend on his EMR graph. Kenneth A. Gustafson of Grafton, a 79-year-old retired business owner, said it was easy to see his numbers when they were presented in a graph on-screen.

"He swung it out so that while he was working on it, you could see the screen. The charts came up with zig-zag lines," Mr. Gustafson said. "He would point out what was happening, where my problem was originally and how it went up and now it's starting down."

At the Auburn District Nursing Association, clinicians who visit patients in their homes bring along tablet-style laptop computers. The Web-based system, in use since June 10, allows nurses to carry the full patient record with information from other caregivers, such as physical therapists or occupational therapists. Updates can be made anywhere there is Internet access.

"Every clinician who goes in has access to all the notes and the progress of every other clinician," said Linda Vacon, executive director of the organization, which has a typical daily census of about 170 patients. "It had been a real challenge over the years in home health to coordinate all the different folks."

The records are also linked to billing, scheduling and payroll programs, an improvement over the previous system.

So far the feedback from patients has been good. They've been telling the nurses that the tablets don't get in the way.

That pleases Mrs. Vacon.

"You want to use your technology to support your care," she said.

“You can give much more meaningful patient care.”

Dr. George Abraham,
MEDICAL DIRECTOR OF THE CENTRAL
MASSACHUSETTS INDEPENDENT
PHYSICIAN ASSOCIATION