Data mining for quality care

By John J. Fried

In a few years, when Kaiser Permanente completes its $3 billion electronic medical record (EMR) system, tremors are likely to run through the nation's small, community-based practices, including those that treat cancer patients. Like most EMRs, Kaiser's system is primarily designed to chart how its 12,000 doctors treat more than 8 million patients at the HMO's 30 hospitals and 423 medical offices.

But the records amassed by Kaiser's EMR will also turn into one of the largest medical databases in the United States—a database that will be mined for information on clinical practices, outcomes, and costs.

Says John E. Mattison, MD, the chief medical information officer for Southern California Kaiser Permanente and a key player in Kaiser's EMR efforts: "The whole world is going to health records and everyone will be able to provide this sort of data. But we will be one of the first to do so on a large scale."

On a day-to-day basis, the trove of data generated from EMR records will be used to spot early generalized adverse reactions to medications such as Vioxx (rofecoxib), to identify patients for clinical studies, to insure that patients eligible for preventive care procedures—mammograms, for example—get them.

But data mined from the EMR records will also be used to prove to those who purchase its services that Kaiser is doing a good job treating patients and does so in a financially effective manner.

Using Kaiser's statistics, Dr. Mattison says, purchasers of healthcare plans will be able to "turn the screws on other providers to match" Kaiser's quality and prices.

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Medicare calling

Medicare is likely to be very interested in the information Kaiser's database will generate, says Kenneth Gould, MD, who recently retired from the HMO. The interest is keen, says Dr. Gould, because Kaiser's database will provide documentation about health care that is not fraught with the potential "biases of the private practice setting," meaning care costs that might be inflated by "extra billing for extra utilization," he says.

Of course, community practitioners—especially oncologists, who face continuous battles to keep their patients alive—bridle at the notion that databases may be used to limit their patients' treatment options. "It's payment limitation by generalization," says Linda Bosserman, MD, a medical oncologist and president of the Wilshire Oncology Medical Group in LaVerne, California. "Here's my fear: You have a patient who has had two different chemotherapies for advanced metastatic cancer. You think further treatment has a very small, but not a zero chance, of slowing the cancer and delaying symptoms. The drug might even extend life and the patient wants to try it. A general database could show that most patients don't benefit, so the insurer would deny payment for the treatment, making it impossible for most patients to have access."

Dr. Bosserman and others also worry that community doctors, even if they practice only the most conservative medicine, may have trouble competing if they don't have the means to amass their own databases detailing how their patients fare and what it costs to treat them. David C. Kibbe, MD, Director of the Center for Health Information Technology of the American Academy of Family Physicians (AAFP), says that doctors who don't use an EMR system with data-gathering capabilities will find it increasingly difficult to get contracts from insurers.

"He who has data will be paid for quality and performance," Dr. Kibbe says, "and any physician not willing to practice where data are collected and to get feedback on that data will be marginalized."

Low-cost EMR

To spare family physicians that fate, Dr. Kibbe spearheads an AAFP effort called Partners for Patients. Under this program, physicians would be able to buy low-cost EMR systems for their practices. Perhaps more important, Partners for Patients would allow participating doctors to collect and make available—to insurers, among others—data about the care they deliver to their patients. According to Dr. Bosserman, oncologists who practice individually or in small groups are going to have to take the same collective approach to amassing data from EMRs. Some have already started doing so, she says.

"There is really no alternative. We deliver quality oncology care, but to be successful we have to standardize around best practices and document our care and outcomes," says Dr. Bosserman. "We have to be cost-effective because health plans are going to stop paying for care they don't think is appropriate."

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