

Does the United States Need an Electronic Medical Record System; Can we afford to have one?

Jonathan B. Weisbuch, MD, MPH

The Bush administration is promoting the development of a universal electronic medical record system (EMR) as a way to reduce the cost of care and improve medical quality.¹ This recommendation is supported by the successful implementation of an EMR system by the Veterans Administration Health Service (VA). The EMR, developed during the Clinton administration under the leadership of Kenneth Kizer, MD, and Thomas Garthwaite, MD, has proven to be a great benefit to the VA,² helping the system to contain costs, monitor quality, and improve patient satisfaction. Would such a system achieve what the president suggests, lower cost and improved care in the larger American health care system? Should the government develop a national EMR that would allow any doctor access to a patient's medical record when he or she presents for care?

Before answering that question, we must analyze the differences between the VA system and our national process in which most of us receive care. The Veterans Administration Health System is a socialized, single payer system owned and managed by the federal government. A veteran becomes eligible for care if he or she has a service related injury, or specific combat experience.³ Not all 23.5 million Americans who have served in the US armed forces are eligible. Currently, 7.8 million veterans are enrolled, 5.5 million of whom received care in 2007. The system employs approximately 20,000 FTE health professionals (e.g. MDs, DOs, RNs, Medical Techs, etc.) in 153 Medical Centers, and 731 community based out-patient clinics. Its FY08 budget is \$39.1 billion.⁴

VA providers are salaried US Government employees. Among their many patient care related responsibilities is the protection of patient medical data. Like other professionals in the military, the Internal Revenue Service, and in other health agencies at the local, state and federal level, their access to private, personal, and protected patient data has never been breached to my knowledge. Personal health data held in government managed public health and clinical systems includes birth and death records, information on HIV/AIDS, other sexually transmitted illnesses, other infectious diseases, cancer, addictions, and other private medical information. With almost no exceptions, the history of government run health systems has shown no leakage or exposure of personal medical data. Within the VA, the EMR allows medical professionals to access records needed for patient care. This access, however, does not place patient privacy in jeopardy, since no reason exists to share the record with others outside the caring process. To do so is both a breach of medical ethics, and a felony subject to severe penalties.

The EMR allows rapid access to patient data, eliminates repeat lab tests and other clinical studies, and helps the VA to keep the average cost of care below other government single payer systems, such as Medicare or Medicaid. VA medical costs are also well below those in the private sector. The VA provides a higher quality of care and receives a higher satisfaction rating from patients and employees, than other systems.⁵ The electronic medical record plays a role in these successes, but none would have been possible were

the VA not organized under one administrative structure, operating under one set of standards, a global budget approved by Congress, and a common mission to provide quality care for the lifetime of its patients. The system places emphasis on prevention, early diagnosis and treatment, rehabilitation, and a commitment to provide comprehensive care to each beneficiary.

Few of the principles that drive the VA, however, operate in the private insurance based, employer funded, American medical care system. The VA is organized to optimize the health of patients. Private health care in America is organized to maximize the financial health of the businesses that dominate the system. These include the insurance industry, the pharmaceutical, medical equipment industries, and other corporate structures whose goal is profits over patient care. In this environment, employers, trying to save premium dollars, will frequently change carriers. As a result, employees may lose their long-term physician relationships, since one carrier's list of doctors may have different set of providers than another. On this carousel, physicians do not get to know their patients well, and visa-versa. And carriers, whose customers change frequently, have little incentive to cover services that prevent future health problems, e.g. smoking cessation, weight and diet control, pap smears, mammograms, or vaccinations other than those mandated by law for children. Carriers will also delay or deny specialty referrals to save money; referrals are expensive, and most patients do not have the dread disease for which the referral is made. Private insurance carriers are in business to make a profit; money not spent on patient care goes to the bottom line. This prerogative results in denials for diagnostic work,⁶ and treatment while patients are receiving therapy for cancer.^{7,8}

Profits are the primary force in the American corporate structure. Insurance companies, drug producers and medical equipment manufacturers are expected to be motivated by profits to stay in business. In recent years, however, the profit oriented, business model has invaded the entire health system: nursing homes, long term facilities, profit and non-profit hospitals,⁹ specialty care hospitals,¹⁰ medical specialists and some primary providers performing extra services for additional reimbursements are all infected with the same pathogen, the notion that health care is a business and should generate profits for those engaged. In this business model, money, time, and labor are invested to earn a profit, in contrast to the VA where money, time, and labor are invested to improve patient care. Arnold Relman, former editor of the New England Journal of Medicine, and others have argued that the business model is anathema to medicine and the medical care system. Quality patient care and profits are incompatible.^{11, 12} The pernicious notion that medicine is a business has corrupted and polluted the profession and the process.

Which brings us back to the Electronic Medical Record as a method for lowering cost and improving quality in the American health care system. Several problems exist which lead to the rejection of this idea at the present time under the current process.

Medical care in the United States is not a uniform system like the VA. It is not even a system in the industrial sense where raw materials are moved into manufacturing which creates finished goods marketed to meet consumer demand. A system requires consumer information and knowledge, communication, feedback and quality improvement. In

American health care, patients have limited knowledge, providers (doctors and hospitals) protect their information; and utilization and quality data are frequently difficult to obtain. Private hospitals, insurance companies, physician offices and state regulatory authorities all function at arm's length from one another. Hospitals do not share infectious disease data with local public health agencies (whose responsibility is the control of infectious disease), afraid these data may leak and become the basis for litigation. Infectious disease frequency, patient outcomes, the number of admissions and discharges, bed availability, and deaths are considered proprietary information not to be shared with competitors, medical groups, insurance companies, and certainly not with the general public. All states do require birth and death registration, and most demand that hospitals discharge summaries be filed with the state health or licensing agency; but these data are tightly protected, as well. Information about the medical product and the providers of that product is inaccessible to the medical consumer; a prime violation of Adam Smith's concept of the competitive market place.¹³ An EMR that cannot be easily shared between independent proprietary elements in the system will be of limited value. One system's EMR will be another's unreadable black box.

For the EMR to work efficiently, any provider confronting a new patient should be able to view enough of the patient's record to manage the immediate problem. The EMR must function with every doctor's computer system and in every hospital. It must be protected from misuse, inappropriate changes, unauthorized exploration; and should be unhackable. If linkages between Windows, Apple OSX, Linux and other systems are problematic, is it possible for a non-uniform EMR process to function as designed? Who shall dictate the design parameters? Who shall build the system? Who shall assure that privacy of the medical record is protected? Who shall enforce the rules? In the closed VA system all of these questions are answered; none are answered outside that system.

And there is more. In the American, pluralistic, market-oriented, profit-driven medical care system, the information held within an EMR has value to individuals other than the primary providers of care or secondary medical specialists. Information in a patient's medical history includes their past history of disease, their use of drugs (licit and illicit), genetic inheritance, exposure to occupational or environmental hazards, and their life-style. These data have market value to those who would exploit individuals for personal or corporate gain. Regardless of laws preventing patient exclusion, an insurance company will not want to cover individuals with a history of medical risk factors. Can an employee's EMR data be kept from the health insurance company chosen by an employer?

Employers may also want access to EMR data. An employer may wish to screen out medical risk factors in potential employees, or those with inappropriate lifestyles, genetic backgrounds, or previous toxic exposures. If EMR data are available to insurance companies and potential employers, can the information be kept from those who might prey on illness? Drug companies, genetic screeners, medical supply companies would all profit from individual medical information by marketing to those with specific medical problems. Do diabetics really want to get phone, mail and email solicitations for multiple brands of insulin?

If these data are available to legitimate sellers, those with nefarious intentions will find ways to acquire the material, as well. Addicts may be targeted, certain lifestyles may be sought, genetic backgrounds may become available to inquisitive in-laws.

A system that must be open to a large number of primary users, physicians, pharmacists, home care systems, nursing homes, hospitals, ambulance teams, correctional health systems, employers and insurance companies to cite only the most obvious, is a system that is fraught with the potential for misuse. Until the medical care system is reformed, the number of potential users curtailed and supervised, and misuse sanctioned, we should be very wary about encouraging the development of a database that will hold the most precious personal information we own.

Before investing in an EMR, we must demand from our Congress the passage of health reform legislation that will eliminate the many abuses now inherent in the medical care-as-a-business model. One place to start is House Bill, HB 676, Representative Conyers' **United States Health Insurance Act**, submitted to Congress with over 100 co-signatories.¹⁴ This legislation will create a single payer system for all residents of the United States similar to, but more comprehensive than, the Medicare program serving those over 65 and others with certain disabilities. It will exclude no one, it will have no mandates to purchase insurance, no assessment of wealth or income, no exclusions for preconditions; and no one need fear financial harm. The full \$2.4 trillion cost for the system will be covered by resources now available; no new money will be required. The law will reallocate into the Medicare Trust Fund, categorical health monies, federal Medicaid contributions, corporate health benefit premium charges, payroll assessments, individual income and corporate taxes; resources now used to fill the many gaps in coverage for uninsured Americans. Profits will not be sanctioned under this system except for specific services not available in the non-profit sector.

Once Congress enacts a universal health system in which patients may enjoy a long term "medical home" with a primary physician of their choice, be guaranteed access to the care they need when they need it, and not fear that their private medical information will be compromised, than the development of a universal EMR might be initiated; but certainly not before.

References:

- ¹ *Michael Fletche, President Promotes Switching To Electronic Medical Records*, Washington Post, January 28, 2005; Page A07
- ² Gilbert M. Gaul, **Revamped Veterans' Health Care Now a Model**, Washington Post Staff August 22, 2005; A01
- ³ VA Health Care , Enrollment Priority Groups,
<http://www.va.gov/healtheligibility/Library/pubs/EPG/EnrollmentPriorityGroups.pdf>
- ⁴ Veterans Administration, VA Benefits & Health Care Utilization, January 24, 2008 update, http://www1.va.gov/vetdata/docs/4X6_winter08_sharepoint_inprogress.pdf
- ⁵ Klein, E, "The Health of Nations," The American Prospect, May 2007

-
- ⁶ Carreyrou, J, “ How U.S. Health System Can Fail Even the Insured,” Wall Street J., p.1, Nov, 15, 2008
- ⁷ Girion, L., “Health Net ordered to pay \$9 million after canceling cancer patient's policy,” Los Angeles Times, Feb. 23, 2008, p.1
- ⁸ Roberts, L, “Health Net Abandoned Cancer Fighter,” AZ Republic, p. A-1Feb, 27, 2008,
- ⁹ Carreyrou, J, and Martinez, B, “Nonprofit Hospitals, once poor, Strike it Rich,” Wall Street J, p. A-1, Apr. 4, 2008
- ¹⁰ Lucas, G, “Settlement in heart surgery fraud case,” San Francisco Chronical, p, B-3, Nov.16, 2005
- ¹¹ Arrow KJ. Uncertainty and the Welfare Economics of Medical Care. Am Econ Rev. 1963;53(5):941-973.
- ¹² Relman, AS, NEJM, “The new medical-industrial complex.” NEJM, 1980:303 (17),963-997
- ¹³ Smith, Adam, **The Wealth of Nations**, Bantam Classics
- ¹⁴ **H.R. 676**: United States National Health Insurance Act (or the Expanded and Improved Medicare for All Act), <http://www.govtrack.us/congress/bill.xpd?bill=h110-676>