EHR REPORT

Electronic Records and the Horse-Drawn Carriage

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"It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change."

– Charles Darwin

"If I had asked people what they wanted, they would have said faster horses."

– Henry Ford

At the turn of the 20th century, the United States had 20 million horses and 4,000 cars. Gasoline, which was a waste product of the kerosene needed for lamps, was carried in buckets by automobile enthusiasts from whatever source they could find.

Over the next decade, a series of watershed events rapidly transformed the car from a novelty to a useful device. In 1903, Horatio Nelson Jackson successfully drove an automobile across the United States, demonstrating the value of the car as transportation. In 1905, Sylvanus F. Bowser perfected the gasoline pump, and the world's first filling station opened later that year. Then, in 1908, the Ford Motor Co. began mass production of the Model T. Coupled with a time of prosperity, the automobile became part of a lifestyle, available to people of even modest means.

By 1910, there were half a million cars in use in the United States. Unfortunately, breakdowns were still frequent, fuel was still difficult to obtain, and rapid innovation meant that even a 1-year-old car was nearly worthless. The high-wheeled buggy style, directly descendent from the horse-drawn buggy of the previous century, could be driven virtually anywhere. This was necessary, because there were fewer than 200,000 miles of gravel road and only 1,000 miles of paved concrete.

It wasn't for yet another decade, in 1921, that the Federal Highway Act was passed by Congress. This legislation coordinated state highways and standardized U.S. road construction practices. Now, a century later, we are the proud owners of about 5.7 million miles of paved highway, along with about 125,000 gas stations.

How is this progression of technology, culture, and infrastructure relevant?

Despite decades of tinkering, electronic medical record (EMR) systems remain a relatively novel technology. Features can quickly become obsolete, and the government has just months ago settled on national standards for their use. Perhaps most importantly, the entire cultural transformation that attends new technologies is only just emerging for EMRs.

Physicians have expressed many concerns. Will this technology interfere with the humanism and patient interactions that form the heart and soul – if not the science – of medical care? Will the placement of a screen in the room divert the physician from giving direct attention to the patient in favor of inputting required data? Will the "narrative" of the illness – the description of the patient's experience – be lost as the representation of disease is narrowed to discrete data fields?

In addition to these humanistic concerns are the more practical concerns that surround the efficiencies of patient care and the enormous cost of integrating an EMR into a practice. In the old days, the practitioner who kept sparse notes about his patients on 3-by-5-inch cards could give humanistic, efficient care. However, that way of documenting care would never suffice for the complexity of modern medicine, or for the collaborative care that is now necessary in any group practice.

As medical knowledge becomes more complex, it will be ever more important to have primary care physicians providing the majority of care for patients, and it will become increasingly necessary to have systems that coordinate a patient's care among all providers. In order to do this, EMRs will need to easily record and transmit medical information in a clear, predictable, and secure fashion among different practitioners.

One of the great potential benefits of EMRs is population management.

Our current system of paper-based individual medical records requires that a physician wait until a patient comes to the office before the opportunity arises to intercede on chronic disease processes. The effort to manage risk is often compromised if that patient comes in with another agenda, or if they were scheduled for insufficient time, or if the day has become particularly busy.

EMRs allow us to find those patients who have suboptimal management and reach out to them proactively. Through the use of patient portals, EMRs may also be able to encourage a more collaborative health system with our patients, who ultimately have the greatest stake in their health care.

Increasingly, our method of recording information in an electronic medical record will force us to pay more attention to the content of the information we gather. Given this focus on content, we must remember that the process of gathering information and forming relationships with our patients also has inherent value.

Done correctly, with empathy and attention to detail, this process makes both patient and physician feel more satisfied with the interaction and also affects health outcomes. The relationship that develops between a physician and a patient has a direct therapeutic effect. It influences the information obtained, the decisions about what treatments a patient will consider, and compliance with medications and lifestyle modification. And it keeps the door open so that patients are comfortable returning for follow-up.

Technology must coevolve with technique, along with the cultural expectations of patients and physicians. With humanism sustained as the basis of medical care, and with technology enabling the best use of evidence-based science, we will improve care for individuals as well as the population.

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Depressed Medical Students Concerned About Stigma

BY ROBERT FINN

FROM JAMA

A survey of more than 700 medical students found that 14% were moderately or severely depressed. Those depressed students were significantly more likely than students who were not depressed to express concern about stigmas associated with depression, according to the survey, published Sept. 15.

For example, 53% of the students with moderate to severe depression agreed with the statement, "Telling a counselor I am depressed would be risky," compared with 17% of students with no or minimal depression.

The results come from a survey of all 769 students in the medical school of the University of Michigan, Ann Arbor, in September-November 2009. Of the students surveyed, 505 (66%) responded, reported Dr. Thomas L. Schwenk and his colleagues at the university (JAMA 2010;304:1181-90).

First- and second-year students were no more likely than third- or fourth-year students to report moderate to severe depression (13% vs. 15%). But significantly more women than men scored in the moderate to severe range (18% vs. 9%).

Third- and fourth-year students with moderate to severe depression were more likely to report suicidal ideation than were first- and second-year students (7.9% vs. 1.4%).

Significant differences were found on several other stigma-related statements. For example, 62% of the students with moderate to severe depression, compared with 34% of those with no or minimal depression, agreed with the statement, "If I were depressed and asked for help, I would be admitting that my coping skills are inadequate."

Depressed students also expressed significantly more concern about being less competitive in their residency applications.

On the other hand, 86% of students with moderate to severe depression disagreed with the statement, "Medical students with depression are dangerous to their patients," compared with 74% of students with no or minimal depression who disagreed with that statement. The difference was significant.

"These results suggest that new approaches may be needed to reduce the stigma of depression and to enhance its prevention, detection, and treatment," the authors said.

"The effective care of mental illness, the maintenance of mental health and effective emotional function, and the care of professional colleagues with mental illness could be taught as part of the ethical and professional responsibilities of the outstanding physician, and become a critical component of the teaching, role modeling, and professional guidance that medical students receive as part of their curriculum and professionalism." ■

VITALS

Major Finding: Among medical students who completed a survey, 14% were moderately or severely depressed. Among those students, 83% agreed with a statement that if they were depressed, others would find them unable to handle medical school responsibilities, compared with 55% of students who were not depressed.

Data Source: Cross-sectional, Internet-based survey of all 769 students enrolled in the medical school at the University of Michigan in September-November 2009.

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