

Right Brain: The E-lephant in the room

One resident's challenge in transitioning to modern electronic medicine

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ABSTRACT

The electronic medical record (EMR) is changing the landscape of medical practice in the modern age. Increasing emphasis on quality metric reporting, data-driven documentation, and timely coding and billing are pressuring institutions across the country to adopt the latest EMR technology. The impact of these systems on the patient-physician relationship is profound. One year following the latest EMR transition, one resident reviews his experience and provides a personal perspective on the impact the EMR on patient-physician communication. *Neurology*® 2014;83:e125-e127

I can remember my first encounter with one of my clinic patients using [the new electronic medical record]. It was possibly one of the lowest times of residency. Armed with this Rolls-Royce of EMRs, I felt miles away from my patient. I still can't seem to get past the urge to just toss the computer aside and actually talk to people when I see them.

These are the words I wrote to a colleague in an e-mail a little over 1 year ago. It was soon after the institution had transitioned to the latest electronic medical record (EMR) system. I had been filled with the hope and excitement of a new technology designed to improve efficiency and optimize documentation only to realize an unforeseen struggle. Despite the bells and whistles of this powerful new EMR, I felt divided from my patients.

Now, 1 year after this transition, I find myself at a new institution with new patients but the same challenges with the EMR. Over the past year, I have mastered many of its highly touted features. I can generate a patient handout detailing the side effects of medications, load a prepopulated letter and send it to a referring physician, or receive and send messages to patients through the patient portal. I have become adept with the features of this system and am using it to improve patient education, communicate effectively with referring physicians, and respond timely to patient-related concerns. Yet I still feel divided.

Having been raised steeped in the technology of Generation Y, one would think that I would be immune to such a struggle. I watch my favorite television shows on an iPad and catch up with friends on Facebook. My iPhone is not just a telephone, it is a baby monitor, DVD player, 24-hour e-mail service, recipe generator, home security system, and so much more. Despite the pervasiveness of technology in my

daily activities, I still feel that the EMR is getting in the way of my patient-physician communication.

The impact of modern technology on the patient-physician relationship has long been recognized.¹ Early research on the impact of EMRs on this relationship highlighted both areas of help and hindrance.² Perhaps one of the more striking recent accounts has come from a 7-year-old girl who artistically depicted this apparent divide in a painting where she sits smiling on the examination table and her physician is feverishly typing at the computer, his back to her and everyone.³ The message of a divide is clear, but the causes are less defined and may include the ergonomics of the examination room, the limitations on physician time, the increasing documentation demands, or the medical record itself.

According to Merriam-Webster, a medical record is "a record of a patient's medical information." In truth, today's EMR serves many more purposes:

1. Documentation: A means of communicating the details of a clinical encounter with physicians and patients
2. Billing: A means of communicating the fees for services with insurance companies and other reimbursement organizations
3. Coding/physician reimbursement/resource allocation: A means of communicating the details and capacity through which services are rendered with governing bodies and other institutions
4. Legal testament: a means of legally documenting and communicating the decisions and interactions that account for a patient's care

Whereas these functions may seem somewhat disparate, a common thread is clear. At its core, the medical record is a means of communication—from one

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provider to another, to an insurance company, to the health care system, or to the legal community. Could it be that this communication is getting in the way of the most important dialogue: our communication with our patients?

The literature on this topic is mixed. Studies in the early 2000s raised concerns that widespread implementation of EMRs could jeopardize the patient's voice. In Israel, a longstanding global leader in EMR use, studies have found that physicians spend an average of 23%–55% of the clinic visit looking at their computer.^{4,5} In these studies, computer use was inversely correlated with psychosocial questions, empathy, reassurance, and general patient centeredness; keyboard typing was found to significantly impede patient–physician dialogue; and up to 92% of physicians felt that the EMR disturbed patient–physician communication.^{4,5} Similar findings have been reported in studies from other countries, including Canada and the United States. In one US study of outpatient primary care practices, physicians spent 40.6% of the visit viewing or using the computer, the majority of which was spent without engaging the patient.⁶ The ethical dilemmas of such a paradigm shift in the patient–physician relationship have been voiced repeatedly.⁷

Studies have also highlighted the benefits of the EMR on certain aspects of the clinical encounter. Enhanced patient satisfaction through improved medication reconciliation, real-time review of tests results, and improved explanations of medical illness have been described.⁸ In the aforementioned study from Israel, keyboarding was also positively associated with an increase in biomedical information gathering and therapeutic regimen counseling.⁴ In pediatric patients, parents report higher quality of care and satisfaction following implementation of an EMR as a result of better understanding of medical tests.⁹ Physicians also report these perceived benefits in information gathering and result reporting.¹⁰

As I reflect back to those first few weeks of my transition to a new EMR, I recall one thing in particular. It was not the content of my clinic note, the nature of my examination, the time spent reviewing tests results in real time, or the accuracy of prescribed treatment that was getting in the way of my connection with the patient. It was that someone new had entered the clinic room. Something was drawing my eyes and drawing my attention away from the patient. It was the elephant in the room.

The concept of the EMR as a “third party” in the examination room has become increasingly well-recognized. Modern EMRs are complex and powerful tools for information gathering and sharing and they have begun to occupy a central position in the visit. Physician strategies for integrating this new presence into the encounter have varied and include technology-

focused, human-focused, and mixed strategies.¹¹ Technology-focused strategies have included typing while maintaining eye contact, intermittent gazing at the computer while talking, or frequent affirmative verbal and nonverbal cues while typing.¹¹ These strategies have favored expert typists. Human-focused strategies have often incorporated supplemental methods of data entry, included patient questionnaires or medical scribes, and are often employed by less adept typists.¹² Some evidence suggests that in an attempt to maintain the human connection, some physicians have even deferred use of the EMR while in the examination room altogether.¹³ These strategies remain the subject of ongoing debate in the literature, in the office, and in the examination room.

Ultimately, one single solution is unlikely, and multiple strategies for each provider, each patient, or even each encounter may prove optimal. Learning to use the EMR as a tool to build a patient-centered encounter may prove the most beneficial. EMR transitions may provide a unique opportunity for developing these new habits. Physicians tend to default to personal experience over formal training to guide their EMR use and thus a gradual approach to such transitions with focused training may be most ideal.¹⁴ Identifying these periods of transition and focusing on developing habits that optimally maintain patient–physician communication is optimal. Such training should begin even at the level of the trainee as the impact on medical students and residents is substantial.

Now, 1 year after using the latest EMR, I continue to struggle. Pressures shape practice, and I feel increasingly pressured toward computer-centered data entry. I fear that I am losing the patient narrative. I know the workarounds; I understand the fixes. I “Mark as Reviewed” during each encounter, link diagnoses to treatment plans, and complete billing by the end of the visit. However, I still struggle with how to integrate this new tool into my patient–physician experience. For now, I walk into the clinic room, open up the printer, take out a blank piece of paper, slide up in front of the patient, and listen to his or her story. I smile and nod. I scribble and mark. At the moment, this elephant in the room will stay in the corner.

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DISCLOSURE

Dr. Strowd serves on the editorial team for the Resident & Fellow Section of *Neurology*[®]. Go to Neurology.org for full disclosures.

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