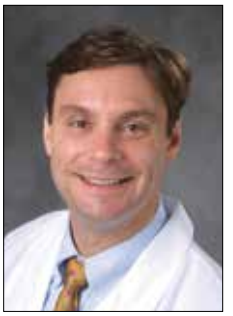
Information "Technoncology"



September marks the release of the latest iPhone (13), 14 years after the first iPhone appeared in 2007. That amounts to a new hardware update nearly every year, with multiple software updates in between. This rapid pace of innovation and uptake in our society is so seamless that it hardly seems remarkable. Imagine how disruptive it would be if innovation and uptake occurred at the same pace with our medical records and information.

The American Recovery and Reinvestment Act of 2009 (ARRA) required all public and private health care providers to demonstrate the "meaningful use" of electronic medical records (EMRs) by January 1, 2014, if they wished to maintain their Medicare reimbursement levels. At Duke, we met this mandate with what we called "Maestro Care," which involved implementing Epic Systems' EMR software and adapting it to our health system. Although the change was largely a software implementation, the costs were staggering, training was painful, and the time needed to convert all of our suddenly antiquated health records into a new platform was overwhelming. The change hardly seemed worthwhile back then, especially compared with the ease of upgrading to a new phone, for example. Yet now, as we approach the eighth anniversary of the ARRA requirement, I can hardly imagine heath care without it. Take, for instance, the way in which we dealt with the latest restrictions for COVID-19.

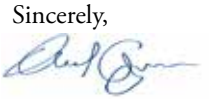
How would the past 18 months have unfolded if we had not been able to access and document patient care with EMRs? The rapid integration of telemedicine would have been impossible. Relying on local laboratories for testing and imaging to minimize patient visits to cancer centers would have required the use of faxes, snail mail, or other HIPAA-compliant but outdated mechanisms. Medical errors likely would have been far more common without the safeguards built into these EMR systems, and the transparency that allowed others to check our documentation.

The widespread integration of EMRs into our practices has had at least one other enormous benefit—the ability to standardize, anonymize, and aggregate health care data has revolutionized health services research. Health services research is arguably one of the fastest-growing areas in oncology, in which the number of researchers, amount of funding, and investments in infrastructure are increasing rapidly. From patient-centered studies to those dealing with artificial intelligence, the use of EMRs has made possible analyses that we would not even have contemplated before, at least not on the scale and scope seen today. The pace of change has truly made this an exciting time to be in medicine, especially oncology. Nonetheless, despite all these advantages, I cannot help but feel that something has been lost—our former ways of interacting with one another.

So much of our time is spent in front of a keyboard and monitor, especially once we leave a patient's room. Time that used to be spent conversing with staff, colleagues, and trainees is now spent sitting 18 inches from a screen. I recall recently walking in on inpatient rounds and seeing students, interns, residents, and the fellow sitting with their backs to one another, all looking at their computers while discussing a case with the attending physician. No one was looking at a colleague, or even at the person presenting the case! Instead, people had the patient's EMR open and were reviewing the data, laboratory results, images, pathology reports, and notes while the assessment and plan of care were being discussed. That was before the COVID-19 restrictions that further isolated team members from one another.

At the risk of dating myself, I recall my internship and residency at Johns Hopkins Hospital, where we presented cases to our team from memory at the patient's bedside after each night on call. This was not a perfect system. Plenty of details were skipped, and it was awkward—at least to me—to use our customary medical jargon in front of a patient who could not understand what we were saying. But there is a big difference between a medical case and a medical patient, and there is no better way to humanize a case than to meet the patient in person. My hope is that as we embrace the information technology of medicine, we do not lose sight of the patient as a person. Just as important, I hope that we as medical professionals do not lose sight of one another.

Sincerely,



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