

Oncology EHR: Taking the Road Less Traveled

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In late 2009, researchers from the University College London reported that between 50% and 80% of electronic health record (EHR) systems are unsuccessful outside of a controlled testing environment. They observed that the bigger the EHR project, the more likely it was to fail. There have been colossal EHR failures in general



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medicine, with costs approaching billions of dollars. In the complex world of oncology, implementation has resulted in actual reversal of implemented systems in more than 10% of projects.¹

Also in 2009, the American Society of Clinical Oncology (ASCO) and the Oncology Nursing Society released national guidelines for the safe administration of chemotherapy in the outpatient setting in the hopes that their effort to standardize care “can reduce the risk of errors, increase efficiency, and provide a framework for best practice.”² In their discussion of the standards, the groups noted that “increased use of electronic medical record systems may lead to improvement in the safety and quality of outpatient chemotherapy administration.”²

The signing into law of the American Recovery and Reinvestment Act of 2009 established programs to provide incentive payments to eligible professionals and hospitals participating in Medicare and Medicaid that adopt and make “meaningful use” of certified EHR technology.³

With EHR now a national mandate, even holdouts are keenly looking at the \$19 billion in stimulus incentives from the current administration to convert to the electronic side of the fence. The act is the major driver for adopting EHR, which until now has been regarded by many as too complex and expensive to implement.

One cancer center's experience

I would like to share my long and arduous EHR journey spanning more than a decade and a half in the hope of passing on valuable insight to readers. Although the journey has been fraught with challenges, detours, and false starts, it has been consistently interesting.

As the director of pharmacy services for an ambulatory cancer program for 17 years, I offer a unique perspective. My employer, Aptium Oncology, Inc, is a leader in outpatient ambulatory cancer care, providing consulting and management solutions. The Comprehensive

Cancer Center is a 50,000-square foot outpatient cancer center on the campus of Desert Regional Medical Center, a 400-bed regional medical center managed by Tenet Healthcare in Palm Springs, California. It offers radiation, medical, and surgical oncology as well as a comprehensive breast center. It is fully staffed by a multidisciplinary team of physicians, nurses, pharmacists, lab technologists, dosimetrists, physicists, dietitians, and social workers. The 20-year-old center caters to a geriatric “snowbird” population.

In the late 1990s, I worked with a team to explore the use of an EHR system at the cancer center. The team included corporate staff, our hospital partner, physicians, nurses, and laboratory, pharmacy, and information technology (IT) professionals. The pilot launched three systems; within 6 months, we were evaluating our third and final option, which remained in a pilot trial for 9 years.

Months into the pilot, we realized the technology was not ready for prime time, at least not for the medical oncology needs of the cancer center. The programming was either too rigid or did not meet the complex needs of ambulatory medical oncology. That said, the medical staff involved in the pilot did enjoy the utility and convenience of the electronic laboratory, notes, and order sets that I developed. This meant we could not really sunset the project. The only option was to move forward.

The application did not fully meet clinic needs, however, leaving the already busy pharmacy team working to fill in the gaps. To make matters worse, the company that created the EHR product was acquired, and the new company no longer supported the software. It was time to develop a more sustainable solution.

In April 2006, Aptium Oncology revisited the EHR project and chartered a new team to assess its viability. I remained on the team. Taking 1 week off from clinic duty, I traveled to our corporate office and sat with 12 others from across our enterprise. We evaluated five vendors in our quest for a system that would meet the needs of our eight cancer centers across the United States. We prepared a needs document with a third-party consultant—a must in evaluating vendors fairly.

We chose to move forward with Eclipsys, which ironically was the com-

pany that had acquired the legacy system in use at Desert Regional. Although our capital investment at this point was not that significant, the outlay for manpower to date was considerable. In the end, we chose to deploy our internal experts to design, build, and implement the new EHR system.

We soon realized that the most desirable feature of an oncology EHR—customization—would require significant cost, effort, and time. We started with a generic EHR designed for acute-care hospitals or nononcology physician office practices. To us, it seemed the vendors did not understand the outpatient oncology worldview. We had our work cut out for us. On the road less traveled, this could be a road block for many travelers.

We did not realize that even in a company of our size and with our expertise, this would be a challenge. “It took us about 8 months to understand the architecture and nomenclature well enough just to be able to begin the process of a customized build,” says Suzanne Bledsoe, vice president of information technology and the project lead for the Eclipsys oncology EHR project at Desert Regional. “Then it took a team of about 10 dedicated clinicians about 18 months to generate, perfect, and test the build that we use today.”

Mark Leavitt, chair of the Certification Commission for Healthcare Information Technology, speaking at the annual conference of the American Health Information Management Association this past October, corroborated Bledsoe’s perspective. “Physician practices and hospitals that have yet to select or implement an EHR system should get a move on. Those who wait until next year will face a high risk of failing to achieve meaningful use of health IT in time for the 2011-2012 federal incentives. You’re dreaming if you think you can achieve it in less than a year. Achieving meaningful use of an EHR system will take at least 18 months, if not 2 years.”⁴

To date, we have had the full-time use of a pharmacist, dietitian, nurse specialist, and nurse manager in addition to our existing IT support team, consultants, and vendor support. Our roles have expanded to include interfacing with software engineers. Fortunately, the internal experts have a combined 30 years of experience and fully understand process flows in a cancer center. Still, we invested considerable capital in this project and it is hard to see how a solo practice or hospital provider could even initiate a project of this scale and resources.

Wes Scruggs, chief information officer and executive vice president of Aptium Oncology, agrees. “We have gone full force to configure the best possible oncology EHR for our clinicians. Few organizations are in a position to make this kind of investment, and with the stimulus incentive clock beginning very soon, it would be nearly impossible to pull this off from scratch.” Already, Scruggs and the IT project lead are fielding queries from an increasingly EHR-conscious world.

A 2009 EHR satisfaction survey conducted by Oncology Metrics reported that among 18 EHR vendors, not one has captured market dominance or fielded oncology-specific content, so no prepackaged oncology application is currently available. The report further noted that 65% of those without a current system agree that an oncology-specific EHR would be their top choice when they do adopt.⁵

“The EHR at the Comprehensive Cancer Center at Desert Regional went live in October 2009, and we have not looked back. Getting off at the speed we are going now is out of the question,” states Marika Loveless, RN, EHR project director. “We have worked relentlessly to develop a finely tuned system that meets both our clinicians’ and patients’ needs, and our system reflects that.”

A means to an end

It has been a great journey and the road still stretches out before me and my fellow EHR travelers. No doubt implementing an oncology EHR is a daunting prospect, but the rewards are significant in terms of efficiency, cost savings, and improved workflow. But, ultimately, an EHR is nothing more than a means to an end. Let us not forget the reason we travel this road—to connect with and treat those who come to us asking for help. ●

References

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The Comprehensive Cancer Center recently submitted an abstract on oncology EHR implementation for the upcoming ASCO meeting.