EMR: NOT IF, BUT WHEN

An Insider's Guide to Using Oncology-Specific EMRs

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At Berks Hematology Oncology Associates Ltd. (BHOA) in West Reading, Pennsylvania, several factors converged that led us to adopt an electronic medical record (EMR). One of which was we were making plans for a 32,000 sq. ft. facility and facing the imminent replacement of our practice management system. However, even before that there was already increased desire for better access to patient information, safety, quality control, and outcomes measurement.

As the relative explosion of antineoplastic drugs became more specialized, it made it more difficult for physicians to stay current with prescribing information. And, as we became more subspecialized, there was erosion in the expertise to prescribe treatment for those diseases less frequently seen by an individual physician. It was hoped that communicating new treatment protocols through an EMR would help us stay more up to date and encourage new and innovative treatments.

Several secondary and non-clinical reasons for the adoption of an EMR were also considered. It was hoped that an EMR would streamline our business operations and allow us to document activities for billing and communicating purposes, and that it would also position us to participate in the evolving convergence of healthcare, technology, and business activities.

We expected that through digitized records we could more accurately track patient groups to monitor treatments and outcomes, thus improving care, access to care, and cooperation with payers and other stakeholders. It seemed clear to us that the entire healthcare system was moving toward electronic records, and we believed that early adoption and proficiency would make it easier to eventually integrate into larger medical record systems or information exchanges.

Our Reasons for Adopting an EMR

After an exhaustive 12-month search and negotiation process, we went live in early 2004 with our first EMR. At that time, two concerns that helped affect our decision were: 1) oncology income would erode to the point that if we didn't purchase an EMR then, it would be prohibitively expensive to purchase one in the future; and 2) the practice dynamics of moving into a new, larger cancer center.

We had a great deal of concern on what might be lost or misplaced in the move, on continuity of patient care, records access, and availability. Because patient records are paramount to practice functional-

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ity, we wanted our records digitized so we could be sure where the patient information would be after the move so patient care would not be adversely impacted. Although the adoption of our first EMR was expensive and challenging, that decision ultimately was a wise one in that the patient records were the one constant in what was a stressful move.

It should be noted that when we began our initial search, only a few medical oncology-specific EMR systems were on the market. However, we decided to acquire a "best-of-breed" product as opposed to an integrated system that included the typical practice management functions.

Today, many of the pros and cons of an EMR are well known and we have experienced those in our practice. Currently, we are on our second EMR (we went live with it in March 2009), but for those practices that do not have an EMR in place and are thinking of purchasing one, of primary importance is for everyone in that practice to agree on the reasons for installing an EMR, and then develop a sound plan for selecting and implementing it.

For our first and subsequent EMRs, our reasons at BHOA for implementing them included:

1) Improved access to more readable and complete patient information by all relevant personnel simultaneously. This enables remote access to patient records, and enhances for better clinical judgment and documentation, particularly during after-hours encounters.
2) Improved data and documentation for sophisticated regimen management. Regimen standardization is a key feature of any oncology-specific EMR. It allows standard regimens and dosing to be encouraged that should translate into improved quality and continuity of care. It also potentially encourages new treatments and investigational protocols by including them in our list of preferred regimens for a specific disease.
3) Improved safety. Clinical worksheets (embedded or customized) encourage proper documentation and can incorporate clinical pathways and decision-focused knowledge bases that are evidence based. Drug interaction alerts are critical, and they must be a staple of any EMR—they are particularly useful for the physician.
4) Improved order entry. This directly impacts treatment timing and operational productivity of the pharmacy and infusion suite.
5) Improved operations, reduced costs, and enhanced revenue opportunities (charge capture, payer cooperation for improved contracts, ePrescribing, PQRI).

Furthermore, once medical information is digitized it can be more easily exchanged with larger systems in hospitals, other physicians, or with other health information exchanges or electronic health exchanges. Thus, EMR data could complement an electronic health record (EHR)—yes, there is a difference. However, it is beyond the scope of this article to address the design and implementation challenges given current discrete, fragmented data management technology, issues of "meaningful use" criteria, interoperability, and factors related to strategic concerns external to the medical practice.

To be sure, we have experienced growing pains and several challenges by installing an EMR. It is difficult to identify any one particular challenge as every aspect cont. on pg 16 >>

Do you know the difference between EMR, EHR, & ePHR?

EMR	EHR	ePHR
An electronic record of health-related information on an individual that can be created, gathered, managed, and consulted by authorized clinicians and staff within one health care organization.	An electronic record of health-related information on an individual that conforms to nationally recognized interoperability standards and can be created, managed, and consulted by authorized clinicians and staff across more than one health care organization.	An electronic record of health-related information on an individual that conforms to nationally recognized interoperability standards and that can be drawn from multiple sources while being managed, shared, and controlled by the individual.

Source: From The National Alliance for Health Information Technology, Report to the Office of the National Coordinator for Health Information Technology on Defining Key Health Information Technology Terms (April 28, 2008).

of our practice was impacted. But, keep in mind that a positive employee culture of performance, including flexibility, loyalty, and mission-focused responsibility with committed physician and management leadership is critical.

Data Entry and Risk Management

In any conversion, one of the more daunting challenges is data entry. Upon installation, the EMR contains none of the practice's data or forms, and regimens are not customized. Furthermore, everyone is untrained in its use. When first converting to a new EMR, one needs to decide what existing paper information to incorporate. If the decision is to scan the information, only a picture will exist and none of the scanned data will be digitized. To manually enter such data is a tedious task, although doing so enables staff to learn more about operating the EMR.

Data entry does not end when all the paper charts are entered. It is an ongoing process, the quality of which is often dependent on who is doing the entering. To have a truly reliable and accurate chart, the physicians in the practice will have an ongoing requirement to do some data entry and double check what is in the patient record. Indeed, the data is useful only if it is valid, reliable, and users can find it easily.

A significant impact of an EMR is that many of the tasks are pushed to the front of the care-giving process, so physicians spend more time on data entry or conducting data searches before and following each patient encounter. This last reality can certainly sharpen your stress points.

Risk management issues are possible if the EMR can conceal or allow for data to be misplaced. Features such as auto-populating or carrying obsolete information forward are potential hazards to be taken seriously. Idiosyncrasies that may serve to hide information or create non-intuitive scenarios are potential risk factors. Also, the EMR will necessarily require inbound and outbound interfaces with internal or external data sources such as radiology or labs. Data integrity must always be monitored. Thus, adequate, ongoing training is imperative, as are clearly designated powers of "super users" and functional checks and balances, wherever practical, to minimize misinformation and therefore risks to patient care.

The Learning Curve Hurdle

Another difficulty with an EMR is the learning curve to attain adequate levels of user proficiency. With our first EMR, we trained our staff and physicians by having them perform the patient data entry. There were different levels of acceptance or ability for this effort and subsequently different levels of proficiency in using the system.

Our second EMR was much more customizable. As opposed to learning a set system, we had the opportunity to tailor the system to our needs. Even though we were experienced EMR users, during our recent conversion, we realized errors of commission or omission that needed to be reworked in customizing our product.

Physician commitment to such a significant change in any practice is critical to the success of the project. In our case there was general agreement within the group about the importance and necessity of installing an EMR. There was also unanimity in the fact that a paper chart could no longer meet our needs or the needs of our patients and other stakeholders.

Despite all good intentions, it has been difficult learning new practice habits. Learning a new process is time-consuming and causes a significant negative impact to physician productivity and time management. Even the most patient and motivated physicians sometimes have difficulty when a system slows them down and makes them less productive. Ideally, after a relatively steep learning curve, the deleterious effects become less of an issue, but that is user dependent.

Security and Downtime

The last two negative issues that are obvious and have been discussed in several forums are that of patient privacy (HIPAA and eSecurity) and computer downtime. So far, we have had minimal issues with either. We do plan to keep a skeleton paper record to continue to provide mission-critical patient care in the unlikely event of computer failure. Privacy and security are ongoing concerns, and managing them adds to the cost of any EMR. We do, however, have a

robust IT infrastructure and management capabilities, as well as sound internal processes, to ensure reliable and responsive system performance.

Final Thoughts

With the continued development of drugs through research, opportunities will come to improve care, increase access to care, and ensure appropriate use of treatment regimens. These opportunities are not lost on payers or manufacturers. Additionally, the EMR has the potential to contribute to comparative effectiveness initiatives with clinical and business partners in ways not yet imagined or even available. To be sure, the information exchange mechanisms (technology), legislation, and life sciences necessary to exploit such opportunities are still fragmented and evolving. However, without an EMR, practices may find themselves in a disadvantageous position when competing for patients, improved payer contracts, clinical trials, or even physicians.

The EMR, once selected, is a work in progress, requiring ongoing investment of time and money. Return on investment will be elusive and dependent on factors too numerous to specify here. Additionally, the constant evolution of technology, regulation and the practice's strategic partners will all serve to demand much of the practice's leadership. NCL BDO

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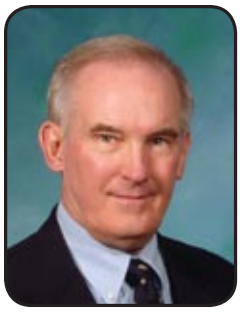

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