

Making the Case for Electronic Health Records: A Report From ASCO's EHR Symposium

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Introduction

It started off as a nice enough day, but things were about to get pretty bleak. The mail was delivered to the oncology clinic at 11 AM, and within the stack of advertisements, payments, and letters of appreciation was an unusual-looking envelope from a major insurance payer.

The letter did not have a lot to say, but the message was drastic. It stated that review of claims demonstrated that the use of an antianemia drug exceeded other practices, and therefore, the reimbursement of this drug was going to be further reduced.

Throughout the previous 3 years, the practice administrator was certain that the usage had increased, but he was also certain that there must have been a positive outcome from this utilization. If the practice had the type of paper medical record that the majority of oncology practices have, I am not sure how he might have mounted an argument. Fortunately, this was not the case. This practice uses a state-of-the-art electronic health record (EHR). The result was that after investing an hour or two in research, the administrator was able to ascertain that the drug use had increased by almost 50%. He was also able to prove that the hospitalizations due to neutropenia had decreased by a similar rate. Recognizing that this could have been the result of other therapies, the numbers seemed too close to be a factor of consequence. The hour invested was miniscule in comparison to the days that would have been spent searching paper records trying to identify all of the patients who received the drug; and doing the comparison regarding hospitalizations prevented would have been nearly impossible. Epoetin alfa is a very expensive drug, but a neutropenic hospitalization is far more expensive for the insurance company. Our administrator friend was not only able to stop the arbitrary reduction in reimbursement that was being threatened, but he was able to mount an offense of his own toward increasing reimbursements for use of that drug.

There are a lot of reasons for moving forward with an EHR purchase, but clearly, the most compelling is the availability of information. DuBeshter et al¹ reported that "by using computer order entry with error-checking algorithms, it may be possible to eliminate a number of types of errors associated with chemotherapy administration without sacrificing efficiency." Additionally, pay for performance is a reality that is well on its way, and to gain from the process financially, practices will have to be able to prove that various activities have been accomplished. For a physician in a large, multispecialty practice, it is difficult using today's paper chart technology to keep up to speed on the details of clinical trials. With an EHR the computer receives clinical trial updates and during the examination can remind the physician of trials for which the patient might qualify. In the case of commercially-sponsored trials this can mean an increase in practice income, and more importantly, this can mean an increase in survivability for our patients.

The Electronic Health Record Symposium

In late 2006 the American Society of Clinical Oncology (ASCO) established the EHR Workgroup to evaluate the various systems available on the market. The workgroup invited 25 software providers to participate in a roundtable meeting in January 2007 to discuss issues related to EHR implementation in oncology practices. Twenty-three software companies participated in this meeting in addition to senior thought leaders from government, academia, community-based oncology practices, and patient advocacy organizations. The participants developed a criteria list of activities for EHR companies to demonstrate that specifically addressed requirements of an oncology center, ostensibly including radiation, medical, and surgical oncology requirements.² The vendors were then invited to participate in the EHR Lab at ASCO's 2007 Annual Meeting in Chicago with the requirement that they incorporate the ASCO colon cancer treatment plan and treatment summary into their product. Eleven vendors met this requirement and participated in the EHR Lab. Seven companies were then invited to an ASCO-sponsored "face-off" event in the fall of 2007 to demonstrate their value for oncology practices. ASCO invited members of the overall oncology community to participate in this event.

To evaluate systems on like terms is very difficult under normal circumstances. Each vendor highlights their strengths and tends to avoid the weaknesses of its product. To be certain that "apples were compared to apples," specific scenarios were developed by the EHR Workgroup members and provided to the software companies. This allowed would-be consumers to go from vendor to vendor and ask to see how they handled a particular patient's case. Timed group presentations were also available, again using the specific scenarios provided by the EHR Workgroup. Finally, there was the head-to-head event itself. Each company was provided the history of a specific patient before the symposium. Then there was new information provided in real time that would have been similar to what would have been discovered in a patient's visit. Each company had 25 minutes to document the new information and demonstrate how agile their system was in identifying drug interactions, recommending drug dose changes, and introducing examination findings. At the conclusion of the 25 minutes, six questions (see sidebar) were presented to the audience, and with electronic devices, the audience was invited to vote the level of their agreement with the statements made. The results of the voting were then projected for both the audience as well as the company representatives to see.

Why Is an Oncology EHR Different Than a Hospital or Generic Practice System?

The most significant difference between the oncology systems that were demonstrated at the EHR Symposium and hospital systems that offer a practice management module is that the demonstrated systems developed more complex algorithms to more completely support the oncology practice. Attendees were

provided with an evaluation tool with a suggested ranking scale of 1 to 5.

Various Considerations of the Platform

Server-based software, with the computer hardware housed locally, within the facility, is considered by many to be more secure than Web-based systems that transmit patient and other information over the Internet.³

Server-based systems that were demonstrated include Varian's ARIA and Impact's MOSAIQ. The security issue is not obviously agreed on by all, and it does mean that the practice or treatment facility must have an Information Technology (IT) staff or access to such a staff in order to maintain the software and to rectify problems as they might occur. In the case of hospital systems, separate EHR systems can function in the presence of a hospital system and may actually be able to share data such as basic demographic information, but it will require the purchase of an interface that utilizes the HL7 connectivity that all health care systems are built on. Having your own server does provide the sense of having all data within your facility and it will allow you to determine backup protocols, including frequency. While these are benefits, they can also be considered detriments as well. Usually the server requires a designated room that must be set up using certain specifications. Off-site storage of backup files to be used in case of a system catastrophe will also be necessary.

Web-based systems are becoming more and more popular as Internet security schemes are becoming more efficient. Such systems include Altos Solutions' OncoEMR; Rabbit Healthcare System's Rabbit EMR v 4.0; Allscripts' TouchWorks; Cembex Care Solutions' ChemSAFE; and IntrinsicQ's Intellidose. These systems tend to be less expensive, and, for some functions, more mobile than a server-based system would be. Today, using a modern laptop, it is possible to access patient records from anywhere that the computer can connect to the Internet. This includes the viewing of radiology images and pathology slides that have been digitized with the record.

Support of Practice Issues

A concern that was heard repeatedly in the open discussions during the EHR Symposium had to do with the use and placement of the computer during the examination of the patient. Especially disconcerting was the prospect of having to turn away from the patient to make a computer entry, or the placement of the laptop or other device between the physician and the patient. Many different solutions were offered, but it appeared that personal preference of the physician is going to be the deciding factor. Some physicians said that they put the computer aside and allowed the patient to "tell their story."

References

1. DuBeshter B, Walsh CJ, Altobelli K, et al: Experience with computerized chemotherapy order entry. *J Oncol Pract* 2:49-52, 2006
2. Ensuring continuity of care through electronic health records: Recommendations from the ASCO electronic health record roundtable. *J Oncol Pract* 3:137-142, 2007

EHR Symposium participants voted on how each system met the requirements in six domains, using a scale from strongly agree to strongly disagree.

- Flow sheets
- Order Chemotherapy
- Document Chemotherapy Administration
- Physician Notes
- Billing
- Overall Look

Others reported having a nurse in the room to take notes. Several reported having the screen in view so that the patient could see what was being entered and could comment on correctness of interpretation of what the patient had reported.

Allowing the patient to view the computer entries, images, and pathology slides was reported to help patients better understand what their condition was and how their treatment was progressing. It appeared to give them a greater sense of partnership with the physician.

Promise for Tomorrow

Appointment support for patients is something that will soon become a differentiating opportunity for practices. It is only a matter of time before patients are able to make their own appointments, report adverse situations, and monitor laboratory results, without having to talk with a clerk or nurse. Already, patients can order drugs and have prescriptions refilled without seeing the pharmacist and if there are questions, they are answered rapidly, again without having to encounter a middle person. The financial and time savings in all of this will be advantageous for the practice, and as well for the patient.

In conclusion, the concept of EHRs is here to stay. How rapidly and efficiently practices adapt to its utilization will remain an individual decision. The lessons learned by those present at the EHR Symposium were valuable for participants, both on the practice side as well as on the vendor side. The evaluation tools provided by the EHR Workgroup are all encompassing and will serve any practice, regardless of size and complexity well.

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3. Information technology to facilitate and enhance clinical trials participation in community practice. *J Oncol Pract* 3:92-93, 2007