

Implementing EHRs in Community Oncology Practices

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The use of electronic health records (EHRs), also known as electronic medical records (EMRs), is an important component of healthcare reform. In fact, adoption and use of EHRs is not merely a goal of healthcare reform; it is an already funded part of healthcare reform. Now more than ever, community oncology practices need information on how to implement EHRs successfully. As early adopters of EHRs in the practice setting, our hope is that other oncology practices will benefit from some of the strategies used and the lessons learned by the Wilshire Oncology Medical Group.

Prior to federal mandates, oncology practices invested in EHRs for two main reasons:

1. To document medical history, findings, and care
2. To provide sufficient documentation for appropriate and adequate payment for services that are medically necessary for the patient and have been provided by the practice.

By their very nature, EHRs facilitate appropriate documentation, and make it possible to read and understand submit-

ted records in terms of their appropriate comprehensive nature.

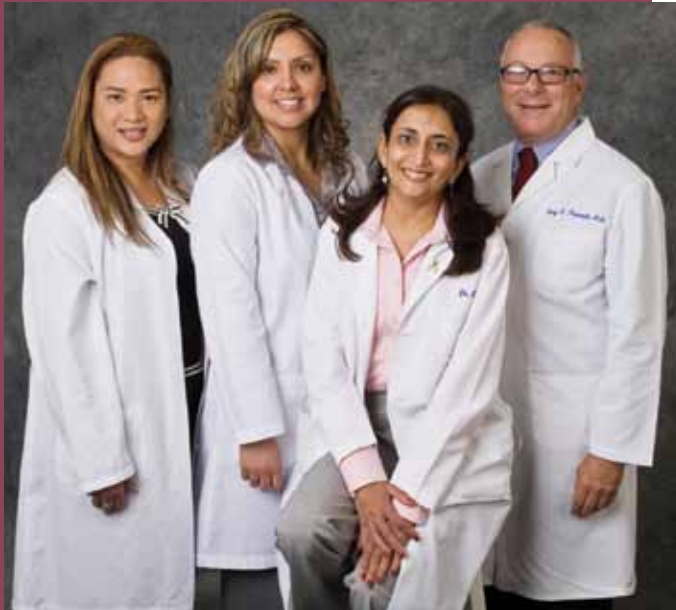
Other potential EHR benefits include the ability to enhance communication, to measure and improve the quality of care, to increase clinical trial participation, to mine data, to participate in e-prescribing, and to improve billing processes.

Improving Communication

To provide quality healthcare, communication is vital. Using an EHR, physicians can more easily communicate current and past medical conditions with other providers in their practice, with referring or co-managing physicians, and with patients themselves. This technology enhances communication across many providers and service locations—both in the practice *and* hospital setting. EHRs provide comprehensive patient records so that physicians have at their fingertips past treatments, pathology, and all other aspects of a patient's history that might not otherwise be immediately remembered or so easily accessed in a paper-based record.

Improving Quality of Care

Within a practice, physicians may use different treatment strategies or follow different decision-making processes. EHRs can facilitate provision of consistent quality within a practice and help to ensure consistency of therapeutic approaches by different physicians.



- ASCO's Quality Oncology Practice Initiative (QOPI)
- Medicare's Physician Quality Reporting Initiative (PQRI)
- The Cancer Centers of Excellence program, the nation's only practice-owned and physician-driven network of community oncologists
- Payer-led quality of care projects.

Improving Research Programs

Oncology-specific EHRs have fields for the multimodal-ity care, including surgery and radiation therapy, complete therapy information, and length of course of treatment, required for central registry. EHRs make it easier for practices to conduct data projects to understand the nature of patients':

- Diseases
- Medications
- General health or performance status
- Delivered therapies including multimodality therapies, as well as prevention, recovery, and support therapies.

These data, in turn, allow the practice to perform an analysis of value: the quality (delivered care and outcome) against defined delivery costs.

Physicians should consider every patient for possible inclusion in a clinical trial, and EHRs can help physicians review patients for eligibility. The technology can also help practices restrict opening new trials to those types of patients most commonly seen by physicians in that practice.

Improving Billing and Coding

Standardized data elements in an EHR make it easier to document complex clinic work, which in turn supports appropriate high-level billing codes. Many physicians are so worried about chart audits that they have traditionally undercoded their work. As payment systems move toward payments for cognitive services, complex care coordination, and oversight and outcomes, the use of an oncology-specific EHR becomes essential. At the same time, the value of EHRs to payers is becoming clearer, as well. As oncology costs become the number one and number two cost to payers, both payers and providers are recognizing that the ability to analyze and report on the complexity, cost, and outcomes of delivered care will distinguish those physicians or medical groups providing high quality and value to consumers and payers, compared to those physicians who need improvements.

E-prescribing

Electronic prescribing is gradually being required and various insurers, including Medicare, have incentive payment programs for e-prescribers. E-prescribing reduces mistakes



Above left, Linda Bosserman, MD, FACP, (left) and Traci Young, MSN, RN, ONP
 Top, Dr. Presant (far right) and Dr. Gargi (second from right) with two of Wilshire Oncology Medical Group's nurse practitioners.
 Above, nursing and administrative staff at Wilshire Oncology Medical Group.

EHRs allow practices to produce data-driven reports on patients by diagnosis, stage, and tumor features with delivered care, outcomes, toxicities, warranted variations, and cost. Putting these data to use, practices can show the value and quality of care delivered, while improving efficiencies and safety and facilitating use of evidence-based guidelines. In fact, EHRs facilitate the delivery of quality care, making it possible to compare an individual patient's therapy with guidelines established by the practice, or with guidelines established by other entities, such as ASCO, NCCN, payers, or other organizations.

EHRs also enhance a practice's ability to participate in national programs such as:

EHR Options

To date, several different types of EHRs have been useful in the medical oncology setting.

Of the oncology-specific EHRs on the market, two—ARIA® (Varian) and MOSAIQ® (IMPAC)—are owned by radiation therapy equipment makers. Both have oncology modules that are highly detailed and integrated with their associated radiation therapy EHR. Both require servers for data, although practices interested in these EHRs could network to share servers, programming, and IT support.

Another oncology-specific EHR, the IKnowMed system used by US Oncology, is programmed centrally and standardized across all user practices.

McKesson's ASP-type EHR, Altos, has all the programmable entry options of Varian's ARIA. Because Altos is an ASP model, the system does not require as much IT support onsite for servers and back-ups.

Other EHR systems can be customized for medical oncology practice use; but—compared to oncology-specific systems that are updated for the growing number of oncology diagnoses, AJCC staging, and tumor features which correlate with therapies and outcomes—keeping a non-oncology-specific system up to date will require far more IT support. Several hospital systems, which do not have as many of the oncology capabilities as the Varian or IMPAC systems, could interface with an HL7 compliant system in a practice. (HL7 is the national standard for digital communication.)

and facilitates evaluation of the growing list of potential drug interactions. Again, by their very nature, EHRs facilitate e-prescribing.

Challenges Associated with EHRs

At this point, many practices understand the challenges related to EHR implementation.

The first challenge is, of course, how to pay for the technology. EHRs entail not only costs for hardware, but also for software and ongoing software needs, hardware and infrastructure maintenance, and training. Staff must be trained and re-trained as systems are updated. Managers, nurses, assistants, and physicians must all be trained and receive timely updates. Practices will need to hire or contract with an information technology (IT) coordinator and/or IT networking expert. To prepare adequately for the upfront and ongoing costs, all of these factors must be considered when budgeting for an EHR.

A second challenge is buy in. All members of the practice staff have to “buy in” to the need for and benefits of this technology. Moving to an EHR requires time and effort on the part of *all* staff members—the time needed to introduce the new system, enter old and new data into the system, and record each interaction is considerable. Staff must be willing to spend the extra time to make this technology improvement in the practice. Practices should assess staff compliance with EHR usage and develop practice-wide methodologies for data entry. To enjoy continued improvements in use and adoption of best practices, the results of these reports should be fed back to staff on a regular basis. All staff must understand that the EHR is for:

- Documentation of care
- Prompts to ensure adherence to clinical guidelines at the time of decision making
- Collection of data to understand which patients with which diseases get which therapies with which outcomes and toxicities at what cost.

A final challenge is the ongoing commitment required by EHRs. In addition to the initial hardware and software purchases, EHRs require additional programming, maintenance, and development of interfaces (e.g., interfaces for laboratory, radiology, hospital, and e-prescribing). Someone—an IT or other staff member—must adequately supervise and update the EHR on a regular basis.

The Implementation Process

Selecting, purchasing, and implementing an EHR is a complex and time-consuming process, involving decision-making, needs assessment, contract negotiations, and staff training. The practice will need to organize an EHR leadership team. This team can be composed of champions from each area of the practice (e.g., physicians, mid-level providers, medical assistants, oncology nurses, and managers) to implement the system practice wide. Or, these leaders can work with individual groups within the practice on their specific needs (e.g., templates or chemotherapy orders).

The leadership team will help each group review all available options in the EHR and decide how to standardize each person's use of the EHR. The team and the practice staff need to understand the interaction of the different components within the EHR. Remember, the final decisions and plans must be discussed with *all* practice staff, physicians, and EHR users.

Step 1: Product decision. Several competing oncology-specific EHRs are available today, as well as larger systems, which are often hospital-based and that may or may not have oncology modules you can build or buy. When choosing an EHR, keep in mind the importance of being able to generate reports from the system. Another crucial factor in EHR selection is vendor support. In fact, support services are an important negotiation point in any EHR purchase. (For more, see “The Art of IT Contract Negotiations,” *Oncology Issues* July/August 2008, available online at www.accc-cancer.org.)

Non-EHR users may find it difficult to fully evaluate EHR needs and the impact of implementing and using an EHR in an oncology setting. To help in this process, we recommend site visits, discussions with EHR-savvy practices, and reviews by the growing number of practices exper-



rienced in EHR use. For example, ASCO offers a social networking website—*Oncology EHR: Quality and Safety*—where oncologists can connect and share information about the use of EHRs in oncology practices. This tool is available online at: <http://ehr.ascoexchange.org>.

Step 2: Needs assessment. Once an EHR is selected, the next step is to decide how much programming is needed or whether clinical and/or EHR-user networks or other experienced colleagues will let you purchase or copy their programs and methodologies to get you jump started. If your practice has to program the EHR itself, it can take months to pull staff together to standardize all the chemotherapy regimens with appropriate support regimens and educational input for programming. And all of this work must be done *before* you can implement the EHR in the clinic. You will also need to decide on formats for notes and procedures and therapy administrations. On the plus side, taking time to standardize these materials at the outset will make later data pulls much easier to accomplish. (This work is not something most practices realize at the start as they have not previously had significant data on care delivery.)

The practice must decide what data are vital to collect at various types of visits, e.g., new visits; decision-making or therapy ordering visits; follow-up visits, etc.

Step 3: Negotiation and IT support. Practices must now identify a vendor and enter into negotiations. The question of where the data are stored is paramount. The server may either be hosted by the vendor or a third-party entity or it may be located within the practice. Regardless of *where* the data reside, back-ups are crucial to ensure that no data are lost in the event of a hard drive malfunction.

Data ownership is another key consideration. Owning your data is important; however, some EHR vendors reduce the purchase price or maintenance fees in exchange for being able to “sell” your de-identified (HIPAA compliant) data. Owning your data can be a source of practice revenue if you partner with networks to enhance the details and value of that data. If an EHR vendor owns the server and the de-identified data, it can control when and whether the data are sold. If the practice owns the server and the de-identified data, it can decide when to sell the data—either alone or within a clinical and/or EHR-user network. The ability to report on your care and benchmark with other programs is another key reason to maintain control of your data.

As mentioned previously, your practice will need to hire or contract with an IT expert to handle networking and ongoing IT software and hardware needs, as well to

help with data back-up and performance issues.

Finally, the practice must realistically assess how the project will be financed and budgeted. Remember to factor training time into your budget. Finally, the EHR and all supporting hardware must be delivered and installed.

Step 4: Training prior to implementation. Physicians and staff will need to become familiar with the system *before* busy providers are ready to use the EHR while caring for patients. Setting aside time for training either off-site or during non-clinical-care time is critical to allow the team to focus on learning the new system and the interactions and use rules for the major tasks for which they are responsible. The more comfortable and competent staff is with EHR use *before* your “go live” date, the better your implementation will go. You will need to plan for additional training as the practice staff becomes more familiar with the system and is ready to learn the more sophisticated features of the EHR. A helpful strategy is to create priority lists for these more complex features, updating the lists as the team becomes more fluent in EHR use.

You will also need to have a training program for new employees. Practice “super users” may be able to meet ongoing training needs if their schedules allow for time away from clinic work.

Going Live

The practice must decide on the most practical method for EHR implementation. Having staff pre-populate demographic information and as much of the previous medical record as possible can be a significant help. This information might include:

- Diagnoses
- Cancer staging and tumor features
- Previous therapies
- Medications
- Allergies
- Social, family, and medical history.

Practice leaders will need to decide whether to go live with everyone at once or in phases—rolling out EHR use by staffing groups, e.g., front office staff. For example, implementation could start with the administration and scheduling staff, then phase in chemotherapy ordering, and next add medical assistants entering vital signs and medications. Finally, add in clinicians with notes and orders.

Multi-site practices need to consider whether to go live across all sites at once, only with certain staff in all clinics, or to roll out implementation site by site. Going live one site at a time allows the support team several weeks to ensure that a site is up and running with any issues identified and



EHR use in oncology practices will allow transparent and accountable reporting on delivered care...

resolved before adding other clinic sites. Regardless of the initial approach, experienced users know that post-implementation, the EHR will need ongoing updates and modifications. So having a practice-wide system in place to keep all users up to date is important.

Another important implementation decision is whether to go paperless immediately, or continue to use the paper chart for part of the record until more interfaces (with laboratory, pathology, or radiology, for example) can be created or afforded. Some practices opt to scan all documents; others find it more cost effective to keep a paper record but have the essential EHR data for analysis until more funds or interfaces are available.

Moving from the “Story” to Mineable Data Elements

An often unrecognized issue in transitioning to EHRs is the fact that clinicians are trained to capture the patient story (the medical history). In the complex world of cancer care, the key information is not in the story, but in the clickable, mineable data that we need (and have not previously had access to) to demonstrate the complexity of diagnostic, therapeutic, and care needs for cancer patients. For example, descriptions of individual characteristics of patient tumors are very helpful in making treatment decisions, but to “mine” this information, data elements must include defined stage, specific features such as HER2 status, organs involved, comorbidities (coded, not just mentioned), diagnosed symptoms, and performance status.

With the transition to EHRs, some clinicians may find the move from “storytelling” to capturing key data elements a challenge. However, capturing these data in the EHR allows any provider to review a patient chart and rapidly capture the complete ‘story’ of that patient, and it allows for analysis of appropriate care as well as continuity of high-quality care by alternate providers or care team members. Many doctors will want to continue dictating notes as they have been trained to do. As your cancer program’s EHR implementation matures, you may find your goals moving from dictation to the development of methodologies and programming to capture standardized key data elements via clicks—for example, drop-down boxes of data elements that clinicians simply select by a keyboard or mouse “click.” By collecting these mineable data elements, clinicians will be able to better report the complexity of the delivered care and decision-making—to other providers, payers, and patients.

Ongoing Needs

EHR implementation is just the beginning of your journey. Your EHR vendor should provide ongoing support, upgrades, and training. Because user input is important for

ongoing upgrade development strategies, many vendors offer some type of user group, Internet blog, or chat room option to share best practices and information. In the end, most EHR users come to realize that sharing of development needs, creation of best practices, and ongoing programming needs can be best accomplished by networking with similarly committed users.

With EHR adoption, all members of the team will be asked to practice a bit differently. This change can be stressful for the first several months or more, and some practitioners may need additional support or “work arounds.” Plan for regularly scheduled supervisory and group-wide meetings by specialty to:

- Review the implementation process
- Address any problems or additional programming needs
- Share best practices.

With the practice’s data goals in mind, keep a flexible approach.

To maintain efficiencies, identify creative solutions for older physicians or those who are not using the EHR ‘real time.’ For example, develop paper templates (that mirror EHR templates) that a physician or busy mid-level provider can quickly check off by cancer type. Then, medical assistants or other practice staff can enter these data after hours or after clinic. This process allows the practice to run smoothly while the necessary data is collected in the most efficient way for the team. Younger doctors and staff are more familiar with computers and EHRs, so over time this challenge may be less of an issue. Still, to operate efficiently, all practices will need to keep a close eye on the amount of time highly compensated staff spend documenting electronically and ensure that documenting via the EHR is as fast and efficient as alternate strategies.

In the end, your practice must understand that electronic health records are here to stay. Initially EHR adoption can be challenging and disruptive, but ultimately EHRs will help oncology practices improve the quality of their care delivery and their documentation for prompt payment and mandated public reporting. EHR use in oncology practices will allow transparent and accountable reporting on delivered care and demonstrate the known—but previously hard to prove—value of community, as well as academic oncology care, thus enhancing professional satisfaction and pride in a demanding career. 📄

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