Is Your Practice Getting the Most from its EHR?

The Wilshire Oncology Medical Group Experience

by Cary A. Presant, MD, FACP;
Linda Bosserman, MD, FACP;
Wendy McNatt; and
Brandon Emilio

The Wilshire Oncology Medical Group is a private oncology practice in southern California. A multidisciplinary team of 16 medical and hematological oncologists, 2 radiation oncologists, 1 psycho-oncologist, and 1 nuclear medicine physicist provides care to cancer patients in 6 treatment center locations. Wilshire Oncology Medical Group offers a full range of cancer services, including medical, hematological, and radiation oncology; infusion; diagnostic radiology; clinical trials; and patient counseling. The practice sees about 6,500 new cancer patients each year.

The practice is now on its second electronic health record (EHR) system. Here's how Wilshire Oncology Medical Group benefited by being an early adopter of this technology.

Our practice chose the IKnowMed system for our electronic health record. However, in 2006 when IKnowMed was acquired by US Oncology and we realized that the EHR would continue to require centralized programming, our practice opted to change EHRs and go with the more customizable ARIA oncology-specific EHR. The transition experience was very labor and cost intensive. In addition to one FTE technician to monitor the EHR system, our medical and administrative staff had to develop protocols for EHR usage.

While the cost of our second EHR implementation was considerable, this technology allows our physicians to monitor adherence to evidence-based guidelines, as well as measure the "quality" of care we provide. In a 2007 Abstract to ASCO, our practice identified the "costs" of measuring quality care. We found direct costs of oncology quality compliance monitoring per covered life in an HMO population of 75,000 covered lives to be $0.645, and overall costs to be $2.704 per member, per year.[1] The new EHR offered several programmatic benefits, including:

- The capability to customize our programming, especially our detailed physician orders by cancer
- The ability to embed detailed evidence-based protocols by cancer and cancer subtype
- EHR prompts at the time of decision-making to indicate compliance with guidelines or to record reasons for warranted variations in standard, supportive, palliative, and hospice care
- Control over our data
- Tools to evaluate and report back on the quality of our care.

Developing Quality Guidelines

Our EHR allows our practice to review reasons for variations, by physician, in performance and clinical trial participation. Using data captured by the EHR, we are able to show remarkably high compliance with national evidence-based guidelines. In fact, our practice submitted data and presented a poster at the 2009 St. Gallen Breast Conference on our 95 to 100 percent compliance rates with adjuvant hormonal therapy for postmenopausal women seen over a two-year period. We used the EHR to develop quality guidelines for our practice[2] and for our network of practices.[3] With these guidelines in place, our practice has been able to evaluate its compliance with agreed-upon standards for high-cost therapies[4] (Wilshire

Oncology Medical Group compliance was 96 percent) and colon cancer guidelines.[5]

With our EHR, the practice was able to rapidly evaluate important questions related to care and operations. For example, we reviewed patterns of care of our breast cancer patients to identify current patterns of metastatic spread and availability of tissue for personalized treatment planning and for a new chemotherapy sensitivity test our practice is helping to develop.

The EHR has also helped our practice identify patients who may need assistance accessing expensive chemotherapy, and a method to facilitate treatment for these patients.[6]

Improving a Clinical Trial Program

Our EHR has enhanced our clinical trial program in several ways. Not only have we used the EHR to evaluate patients for clinical trials, but we have also used data from the EHR to help us determine which trials to open. For example, using our EHR, we can access initial estimates of the number of patients with certain cancer and disease features who might be eligible for open trials. In 2005 our practice screened 1,640 patients for treatment trials and 393 patients for quality of life trials.[7]

As a result of screening patients for clinical trials, we have successfully completed important trials within our own clinical practice:

- In 2005 our practice studied the bevacizumab toxicities of proteinuria and hypertension and their treatment with ACE inhibitors.[8,9]
- In 2006 our practice used the EHR to identify our patients with aromatase inhibitor induced arthralgia and methods of treatment.[10]
- In 2007 our practice studied our breast cancer patients and identified a 50 percent incidence of vitamin D deficiency or insufficiency using the EHR.[11] We presented these data at the 2007 San Antonio Breast Conference.

Our EHR has also helped our practice increase its participation in multi-center trials. In turn, our practice was able to co-author important studies on ixabepilone that resulted in FDA approval of the drug;[12] bevacizumab and TAC neoadjuvant chemotherapy;[13] and neoadjuvant bevacizumab and docetaxel plus carboplatin.[14]

Mandatory Reporting of Data

Our EHR facilitates our annual reporting on the overall numbers and types of cancer seen in our practice. We also use the EHR to report on the stages of the top eight cancers our practice sees, and we are able to correlate the care those patients received by stage and line of therapy. Our practice gave one local hospital tumor registrar access to our EHR. The registrar found the detailed information extremely helpful in terms of fulfilling the required reporting to the California regional cancer registry. The detail available in our EHR made the process far less time consuming than the previous process of requesting information by mail.

Cary A. Presant, MD, FACP, is staff oncologist; Linda Bosserman, MD, FACP, is president; Wendy McNatt is practice administrator; and Brandon Emilio is IT technician with the Wilshire Oncology Medical Group in La Verne, Calif.

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