



## Electronic Medical Record: Providing Benefits and Opportunities

**Cheryl Deguara, Ph.D.**  
Senior Consultant, Frost & Sullivan

**Cynthia Chavez**  
Vice President of iKnowMed, US Oncology

**You are drinking your morning coffee before leaving for work when the background of TV news startles you into full awareness. A tornado touched down in your city, and among those collapsed and ruined buildings, you recognize your office. You immediately know that you will not be working from there today and you have no access to your patients' records.**

**Questions race through your head: How will I reach my patients? Who needs which treatment? Where are they in their regimens? Which patients do I need to contact today? Tomorrow? And the day after? It goes without saying that patients who miss treatments will suffer serious consequences.**

It sounds dramatic, but many practices have had to deal with the consequences of natural and man-made disasters such as fires, flooding, earthquakes and hurricanes and their impact on patient records. Even without these disasters, patient records can get lost or misplaced.

Luckily, the group whose building was damaged by the tornado had a full online system with protected servers. The physicians and staff were able to access patient records immediately, contact nearby facilities, get in touch with their patients, and arrange for alternative care. For them, residual disasters were averted.

Avoiding disaster is just one of the ways healthcare providers benefit from electronic access to patient records. How many times have you needed access to charts while you were at home, on vacation, or at the hospital making your rounds? Details such as dosing information or illegible handwritten prescriptions can have major effects when errors occur. An oncology practice-specific electronic medical record (EMR) system can help you get around these issues, as well as better promote available clinical trials and get the most out of pay-for-performance guidelines.

---

**Both in an emergency and routinely, electronic medical record (EMR) systems improve access to information, and aid in increasing quality of care and patient safety.**

---

# Perspectives

---

## Electronic Medical Records

An electronic medical record system keeps track of such medical information as patient history, appointment details, prescriptions, drug interactions, and billing.

Paper medical charting goes back to the early 1900's, when Dr. Henry Plummer at the Mayo clinic pioneered patient data records. The electronic version of the patient chart has been around since 1969, when Dr. Lawrence Weed of the University of Vermont, who introduced the problem-oriented medical record into medical practice, went on to develop a model computerized record. The Indiana University School of Medicine implemented one of the first electronic medical records systems in the early 1970's, one still in use today.

---

**EMRs are considered such a crucial solution for the future of healthcare that President Bush set a goal of universal implementation of the technology by 2014.**

---

Today, EMRs have grown in both prominence and importance, especially in the aftermath of environmental disasters when people are displaced and their medical records are lost. In fact, they are considered such a crucial solution for the future of healthcare that President Bush set a goal of universal implementation of the technology by 2014.

## The Oncology Practice-Specific EMR

The basic EMR is enormously flexible. It can stretch to take a multitude of jobs that will fit your practice, offering a range of options that optimize patient care and improve both quality and efficiency in oncology.

*What could you gain from an EMR? Here are a few advantages:*

- Lost charts are history. Patient information is always available.
- Remote access improves cross-coverage. When on call, a physician can access partners' notes and patients' charts quickly and easily.
- Remote access keeps physicians in touch. Patients' charts can be retrieved from home, the hospital, or the clinic – or any other location with internet connectivity.
- Patient safety is improved. Mistakes due to illegible handwriting disappear. Automatic alerts signal allergies, dose maximums, and even treatment alternatives.

*Oncology-specific EMRs offer even greater advantages for cancer care:*

- The oncology-specific terminology, including detailed cancer diagnosis and staging content, comprehensive history, physical and exam tools of online charting can save time over general EMRs or paper records.
- An oncology-specific EMR can provide a physician with appropriate treatment options at the point of care. This key benefit means that the right information is made available at the right time and the right place.
- An oncology-specific EMR can also offer a comprehensive cancer regimen library, including clinical research trials. With this feature, the EMR can prompt a physician on appropriate and available clinical trials as the patient's diagnosis is entered into the record.
- Improved practice efficiencies, decision support, and data on stage and diagnosis appropriateness help in negotiations between the practice and the payer. Robust oncology content and outcomes reporting, which captures all aspects of care in treating cancer patients, allows practices to easily gather necessary information to support compliance on performance guidelines. This reporting also makes it easier for practices to work with payers on total cost of care rather than focus on a narrow view, such as that of drug costs.

## What Else is New with EMRs?

- For physicians who dictate their notes, dictation and transcription capabilities as well as speech and character recognition can be built into the EMR system, easing the transition to full online use.
- Some systems can be customized to include specialty intake forms, subjective objective assessment plan (SOAP) notes, work status reports, chemotherapy treatment notes, history templates, specialty CPT/ICD codes, patient information forms, correspondence templates and prescription hotlists.
- A major EMR benefit is its ability to report information on the quality of patient care provided, with all patient care steps documented. As outcomes are reported appropriately and understandably, the practice can offer concrete data to support reimbursement in a pay-for-performance environment. Even in cases of unique approach, the software will document the factors that can justify non-compliance with recommended standards.
- EMRs can enable integration and automatic participation in comprehensive quality initiatives, such as the Practice Quality and Efficiency (PQE) program utilized throughout US Oncology network practices and ASCO's Quality Oncology Practice Initiative (QOPI).
- As the world of EMRs progresses, more patient interaction is anticipated through direct EMR interface with patients. Secure online access is a modality gaining acceptance in today's world of internet-savvy patients. More and more patients are comfortable with completing family and social history themselves in a system that automatically incorporates the results into their records.
- Imaging reports, lab results, and other diagnostic materials can be transferred directly into the patient record ensuring access to a complete patient record.
- When providers fail to document their evaluation & management (E/M) services accurately, they unwittingly under-code and reduce their reimbursement. EMR helps avoid this pitfall, ensuring more accurate reimbursement.
- To meet HIPPA and privacy regulations, EMRs are also required to be compliant in ensuring the privacy of patient information, especially when transmitting data electronically. Additionally, safeguards and policies must be in place when establishing security and access levels of authorized staff using the EMR. Generally, the EMR software will facilitate these measures.

## EMR Drawbacks

Although the implementation of EMRs has been mandated and their benefits are evident, physicians may see two glaring obstacles: the cost and the time it takes to make the transition to a new system. Moving from paper to electronic records can have a significant impact on a practice. A great deal of time and commitment is required of all physicians and staff when a practice makes this change.

---

**To move successfully through the challenges of implementing an EMR, the practice needs someone internally to be a strong leader and a champion of the EMR.**

---

Once the EMR is up and running, general productivity in the practice will typically decrease while physicians, nurses, and staff learn the new system. Transitioning from paper to electronic records takes effort and requires changing learned behaviors. Dissatisfaction in the new EMR often occurs at this stage, along with the tendency to question the decision to adopt an EMR system. To move successfully through the challenges, the practice needs someone internally to be a strong leader and a champion of the EMR.

# Perspectives

A Publication of US Oncology

Knowing these drawbacks in the EMR adoption process, vendors tailor their products to assure the benefits outweigh the disadvantages. To demonstrate a positive return on investment, they provide tools for evaluating the costs for software and hardware, implementation, network and personnel and weigh those against savings in transcription, printing, chart supplies, storage, systems management and a potential reduction in staff hours. Increased revenue from correct charge capture and data to support pay-for-performance standards can also be a factor.

EMR is a true investment that is, in fact, cash positive. Transition time can be mitigated by training, good quality post-sales support and use of speech recognition or transcription services. These features are worth examining. When they weigh the advantages against the drawbacks, prospective users see how an EMR system can become their reliable partner in their oncology practice.

## Conclusions

Can EMR be a life saver? Yes, in so many senses. Both in an emergency and routinely, these systems improve access to information, and aid in increasing quality of care, increasing reimbursement levels, decreasing costs and increasing patient safety. Most physician practice groups are small, and adoption of EMR has typically required capital, disruption of workflow, and intensive training of staff to be operational. All of these barriers can be overcome and, in fact, EMRs can save money, time, and improve patient care. Once the future of patient care, EMRs are increasingly the standard of care and will continue to be good for patients, physicians and for business.

### Cheryl Deguara, Ph.D.

Senior Consultant, Frost & Sullivan

Cheryl Deguara, Ph.D. is a senior consultant for Frost & Sullivan in the Healthcare & Life Sciences Consulting Group. Dr. Deguara began her career in the pharmaceutical industry with GlaxoSmithKline (formerly Glaxo, Inc) where she focused on preclinical drug metabolism studies and clinical trial sample analysis. After GSK, Dr. Deguara joined Vanderbilt University, where her work led to several publications and important contributions for the development of novel COX inhibitors. Dr. Deguara has also worked on protease inhibitors, a class of drugs used to treat HIV, during her work at the University of California, San Francisco.

In addition to her extensive scientific training and expertise, Dr. Deguara has eight years of business development, alliance management, marketing and consulting experience in the life sciences industry.

Dr. Deguara received her B.S. in Biochemistry from North Carolina State University, her Ph.D. in Biochemistry from Vanderbilt University and completed her post doctoral fellowship at the University of California, San Francisco. She is a member of Licensing Executives Society and serves as a steering committee member for the Northern California Peninsula chapter of the American Diabetes Association.

### Cynthia Chavez

Vice President of iKnowMed, US Oncology

Cynthia Chavez is vice president of iKnowMed, a division of US Oncology. In this role, Chavez oversees the implementation of the electronic medical record system, iKnowMed, as well as guiding the strategic vision for its future role within US Oncology affiliated practices. The iKnowMed software application, acquired by US Oncology in 2004, is on track to have more than 90 percent adoption across the US Oncology network by the end of 2008. iKnowMed supports the network's evidence-based approach to cancer care and provides greater efficiencies to the documentation of and access to patient clinical records. The software is supported by a technical team based in Berkeley, California and Houston, Texas and a nationwide team focused on implementation and customer support.

Prior to working with US Oncology, Chavez was practice director at Rocky Mountain Cancer Centers, a US Oncology network practice, for five years. As practice director, Chavez managed cancer centers throughout the Denver metro area. She has also worked with Steadman Hawkins Clinic in Colorado as a practice administrator.

Chavez received her BA in Accounting from the University of Wyoming, with a focus in economics and management information systems. She has been involved in healthcare management since 1987 and is a member of Health Information and Management Systems Society (HIMSS).

#### For more information:

Call: (800) 381-2637

E-mail: [oncology.info@usoncology.com](mailto:oncology.info@usoncology.com)

[www.usoncology.com](http://www.usoncology.com)

CORP.0005.QNL.1008

Printed with recycled paper.

Copyright © 2008 US Oncology, Inc. All rights reserved.

