

## A Case Study on EHR

### Practicing without Paper Charts: One Practice's Experience

Robert Rowley, MD, Hayward Family Care

September 22, 2008

#### Introduction

Our small group practice recently realized a long sought dream – some even called it a pipe dream – by migrating to a fully electronic platform with wireless tablet computers that run an electronic health record (EHR) system. In the process of moving from a paper-based office to a paperless one, we have become more conscious of the workflows involved in such a transition. Much more goes into this process than initially meets the eye. Based on our experience, we offer the following insights to help others make the switch without too many (potentially costly) mistakes.

***“Their revenues are up. Their patients are pleased. And their doctors are getting home in time for dinner.”***

#### Focusing on the Goal

The goal of an EHR is to allow the physician or other provider to have in hand at the time of the visit all of the information known about a patient – lab results, imaging reports,

correspondence from consultants, medications lists, refill histories and all the chart notes. The focus of the visit can then be on rendering a medical opinion, not on collecting missing data.

In a paper-based office, crucial information is often lacking. In our experience, when patient volume was small and staffing ratios higher, we could more-or-less manage our paper charts. However, as the practice grew and staffing levels failed to keep up with chart expansion, missing or misfiled information became an irreducible conundrum, which we learned to accept. Items such as X-ray reports would be sitting in a to-be-filed queue, and sometimes the entire chart would be missing. The result was a frequent and frustrating need to interrupt patient visits to ask staff to chase down information that should have been in the chart. Eventually, we decided that we had to find a better way of managing our charts, and with the goal of going completely paperless, we began to investigate EMRs.

## **Seven Essential Workflows**

To create a paperless office, practices must find a way to address every office workflow that generates information for the patient chart. Any workflows not addressed by electronic tools will default to a manual, labor-intensive and paper-based process. For example, if there is not an electronic tool for communicating with staff and physicians, written “sticky notes” are likely to become the default, which is inefficient. It may well be that no one software system will offer all of the necessary features; therefore, practices will likely need to assemble a collection of electronic tools, which together will be able to address all of the essential workflows. Though it may seem overwhelming to identify all of these workflows, there are a finite number. The following categorization may be a useful starting point.

### **1. Billing and Accounts Receivables**

This includes creating and managing patient accounts, entering demographic information, billing for services, processing accounts receivable and posting payments.

### **2. Scheduling**

This includes making and confirming appointments for patient visits and acknowledging patients as they arrive.

### **3. In-house Messaging**

Some method must exist for passing messages between staff and physicians. Examples are phone messages from patients, phone or other messages about patients, e-mails with patients or in-house e-mails.

### **4. Documentation of patient interactions**

This includes documenting summary information (e.g., past medical history and review of systems), documenting immunizations and completing pediatric growth charts,

disease-management flow sheets and the like. It also includes generating de novo prescriptions for patients as they are seen.

#### **5. Processing Refill Requests**

This involves responding to requests for refills that arrive by multiple methods – phone messages, faxes, e-mails, etc. It also involves reviewing the clinical records for these patients to render a clinical decision.

#### **6. Reviewing and Acting on Lab Results**

This involves reviewing the lab results, documenting that the results have been reviewed, and acting on the results as appropriate. It may also involve reviewing charts, signing reports and placing them in the chart, and communicating medical advice to the patient.

#### **7. Managing External Correspondence About Patients**

This involves reading, signing and filing the tens or even hundreds of documents that arrive every day by mail and fax, including X-ray reports, correspondence from consultants, old records, disability forms requested by patients, hospital records, emergency room reports, etc.

***“To create a paperless office, practices must find a way to address every office workflow from billing to patient correspondence.”***

Once these seven workflows are recognized, a practice’s search for the best collection of tools to perform these tasks becomes a fairly rational process. Choosing the right tools for the job depends on cost, implementation, training and how well the tools work together.

### **Results from a paperless environment**

We rolled out the conversion from paper charts to wireless tablet PCs in a step-wise fashion, one provider at a time, over a period of two months. Once the office staff started to see the benefits of this conversion with the first one or two steps they were anxious to get all providers off paper charts and onto tablet PCs. The biggest gains for staff were no more pulling or filing. In addition, when patients called the office with questions, staff could now find many of the answers themselves by simply pulling up the electronic record.

The EHR has brought about some staff efficiencies (e.g., we don’t need file clerks and patient-flow efficiencies (e.g., patients spend less time waiting because we spend less time searching for and preparing the chart). There have also been some quality-of-life efficiencies for the physicians. By the end of the work day, all charts are finished, refills are processed, outside correspondence is reviewed and filed, and we can get home in time for dinner.

Because our EHR system works over Internet connections, our physicians can access the system remotely, even from home, if they need to finish chart notes, review refills, review messages, etc. *In addition, the system allows us to grant access to specific patient charts, so that outside consultants can view our ambulatory notes, medication history, etc. via the Web, as we deem necessary. This has been welcomed enthusiastically by those who have used it, such as the local hospitalists.*

***"Outsource the 'heavy' hardware and achieve the same functional result by using a hosted EMR application."***

A somewhat unanticipated result from moving off paper charts has been that our staff are more likely to schedule that "extra" patient today (even late in the day), rather than put it off to another day. We can manage these extra visits easily because an extra chart does not have to be pulled and the staff won't have to stay late. Each physician has been able to see an average of three to five more patients a day, yet we now finish the day promptly with all work completed. As a result of the increased visit volumes, revenues to the practice have grown measurably, offsetting the cost of the electronic tools.

Anecdotal patient feedback is very positive. Patients were initially surprised to see the technology in our hands and thought of us as "modern," but more important, they are pleased that we have all the relevant information about them in our hands. They seem to better trust an opinion that is based on all the information available.

An additional bonus we have discovered, since our tablet PCs connect through our network to the Internet, is the ability to do Web searches for clinical information with the patient in the exam room. We have access high-quality, patient-oriented information on specific illnesses, and print it out for the patient to take home. We are just beginning to see how this point-of-care ability can impact the quality of health care we deliver.

### **A tool for better care**

Implementing an electronic platform sufficient to allow us to abandon the use of paper charts in our office has taken us to the beginning of a new era of clinical practice. At the same time, however, the electronic tool is just that – a tool – and does not replace the practice of medicine. Taking a lesson from the construction industry, we understand that power tools do not build houses; carpenters do. But carpenters who know how to use these tools will do a better job. The same can be said for clinical information "power tools."

EHRs do not care for patients; physicians do. But physicians who know how to use these tools will be able to focus their attention on clinical decision making, rather than paper chasing, and provide higher quality health care to their patients.

#### **About the author**

Dr. Rowley is director of Hayward Family Care, a three physician and two-midlevel primary care group practice in Hayward, Calif., and is medical director for primary care services for the Bay Region of Hill Physicians Medical Group, a regional IPA with more than 2,000 member physicians and 350,000 enrollees. Since writing this article, Dr. Rowley has joined the Practice Fusion team as the Chief Medical Officer.

**Note:** This case study originally appeared in the February 2005 edition of Family Practice Management under the same title. Copyright 2005 AAFP. Since that time, Medical Chart Wizard has been acquired by Practice Fusion incorporated into the Practice Fusion product suite.

#### **Sign-up now!**

Why wait? Practice Fusion is free and you can start charting in minutes! Sign-up now with our exclusive 'Live in Five' process by clicking [here](#).

**For more information contact:**

**Practice Fusion**

**415.346.7700**

[info@practicefusion.com](mailto:info@practicefusion.com)

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