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# Paper is the Enemy: Transitioning to an EMR

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In the summer of 2003, the 16 staff members and 4 doctors of the Plymouth office of Northwest Family Physicians (NWFP) gathered at the front desk to take a picture. Clearly visible in the background of that photograph are 26 filing cabinets containing more than 7000 patient charts. Less than 3 years later, the same shot showed 3 fewer staff people and, in place of the chart racks, 2 new offices and an expanded conference room. The entire medical records department now consisted of 1 computer with a fax machine, scanner, printer and, most importantly, a shredder box.

## Choosing a System

Northwest Family Physicians is an independent family medicine group affiliated with North Memorial Medical Center. The group's 17 partners work in 3 offices in the northwestern suburbs of Minneapolis. By late 2002, it had become apparent that a new practice management (PM) system was needed. Since the clinic had been doing electronic prescribing (e-prescribing) for several years and 2 physicians were using computerized voice dictation, it seemed that the next logical step was to choose a PM system that also offered electronic medical record (EMR) capability.

A committee consisting of the clinic administrator, clinic manager, business office manager, and the site lead staff halved the initial dozen EMR candidates before choosing 2 finalists. The same group plus 1 physician conducted 2 site visits.

The 2 systems had appeared comparable on paper, but in the real world the difference was stark.

One clinic, despite having used an electronic system for years, still inhabited the paper and electronic worlds simultaneously, resulting in increased costs and redundant work. The other practice, running a system from Misys Health Care, offered a vision of the future our practice hoped to achieve: an essentially paperless office with everyone linked by wireless laptop and desktop computers.

## Implementing the System

In the summer of 2003, after the contract with Misys had been signed, the PM system installation began, and the clinic went live with Misys Tiger in October. Thanks to a Herculean effort by the business office, the clinic managed to close its financial books on time by the end of that year. Then preparations began for implementation of Misys EMR. We decided to begin at the Plymouth office and, after the initial bugs were worked out, expand to the Rogers location and finally

to the main office in Crystal.

Important steps in the pre-implementation phase included importing recent transcription into the system, setting up the electronic chart order, and beginning to scan past records. Ultimately we decided to scan the last 2 years by medical record category (eg, office visits, labs, radiology) and separately from the more distant records. Nonclinical processes such as patient check-in were designed as well. Later, an interface to the hospital was built to allow labs and other records to be exchanged in real time.

The system was installed the last week of April 2004, and a few people began beta-testing it right out of the box, without initial modification. Changes were made as we used the product. Some of the simplest alterations involved moving parts of the template around to mirror our previous visit shingle. For example, vital signs, which are the first things checked by a medical assistant, were moved from the physical exam field to the top of the template. Similarly, tobacco status, asked at every visit, was pulled from social history and placed near the top.

In late June, the entire Plymouth office went live. To paraphrase the real estate maxim, the key to acceptance was "training, training, training." Initially, Misys provided trainers for both individual and group sessions. Eventually we de-

veloped our own internal champions in each department who could help with additional education. Struggling physicians received extra help from their assistants.

To ease the transition from paper to EMRs, we attempted to duplicate our existing clinic processes and modified or created our EMR templates to reflect this approach. Specific templates, based on the previous paper shingles, were created for in-office procedures such as sigmoidoscopy (later colonoscopy), stress testing, and colposcopy. Lab-only visits for strep testing, protimes (prothrombin time), and urinary tract infections were templated as well, with built-in treatment guidelines so the lab staff could address these without need for physician intervention, except to review and sign off.

Our mantra became "Paper is the enemy." Anything done on paper was converted to an EMR version, and no new paper processes were created. As the implementation continued, however, it became apparent that current processes couldn't merely be duplicated because the EMR had its own internal logic that demanded different ways of doing things. Initially, this often seemed awkward and time-consuming, and the staff complained about the new approach. So we adopted a strategy of staged implementation whereby, depending on how well the previous step had gone, a new process was begun every few weeks. For example, telephone-call documentation was shifted to EMR, followed by medication refills and then referral requests.

We also allowed a trial period, when both electronic and paper versions were with a firm deadline

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to use the process in EMR exclusively. Eventually we shortened the time between steps because it became apparent that the longer the trial period, the less likely people were to use the new process exclusively. After all the common paper forms had been moved into EMR, and with advance notice, a "paper-free day" was declared and every printed form was removed from the clinic area and thrown away. This may have been the point at which staff grumbling was loudest (1 staff person nicknamed it "Hate Dr. Welters Day"). After a few days people adjusted and began to see that inhabiting 1 world—the electronic one—exclusively was easier than trying to live in 2 peripatetically.

This was most apparent in the use of the main template by providers. Even after the nursing staff had begun entering all their information into EMRs, physicians were often adding "see dictation" to the patient's note and dictating, just as they had done previously. As a result, dictation costs—approximately \$5000 a month at Plymouth previously—did not decline significantly and, in fact, returned to near pre-EMR levels after several months. This was the prime measure used to gauge EMR use.

Finally, at a physician meeting 4 months after the go-live date, the physicians were exhorted to begin using the system full-time or face the possibility of a failed implementation. They all agreed, and within 2 months, dictation costs at Plymouth fell to less than 10% of their pre-EMR level.

Thanks to the lessons learned at Plymouth, implementation at the Rogers office was considerably smoother. Dictation dropped 75% within 1 month of going live and nearly disappeared after 2 months.

Buoyed by this rapid success, we moved up the Crystal office implementation 6 months from Spring 2006 to Fall 2005. Today both Plymouth and Rogers are essentially paperless, with only the occasional stray outside forms to be completed. Both took approximately 20 months to reach that level. Most processes at these offices were moved to EMR within 6 months, but scanning charts took the remainder of the transition phase. Crystal is still living in 2 worlds with many paper charts, but everything new is completed within EMRs.

### Benefits and Cautions

The benefits of EMR for NWFP are many. Most obvious is the reduction in transcription costs; the monthly savings of \$22,000 are enough to pay back the upfront cost of the system in 1 year. Fears of reduced productivity with the implementation have not materialized although physicians often work at home and/or stay later in the office to complete charts. While we did not intend to lay off employees, staff size did decrease, primarily due to attrition, yielding an estimated yearly savings of \$180,000. Because

## PROVIDER ACTION

### Impact to You

EHRs provide physician practices the opportunity to improve quality as well as gain efficiencies and cost savings.

### What You Need to Know

CMS and other payers are moving toward requiring providers to utilize EHRs. But even before this requirement goes into effect, those who are participating in programs such as the Physician Quality Reporting Initiative (PQRI) will benefit from having EHRs in place to improve practice efficiencies.

### What You Need to Do

Start evaluating the options for an EHR system, and then when ready, appoint a practice leader who will initiate and follow a well-organized plan of implementation. The best approach seems to be to completely eliminate the previous paper system (in a step-wise fashion).

of computerized charging, claims are often submitted the same day, and there are few lost charges. Claims denials can also be addressed quickly because the business office staff has immediate access to the visit notes. Use of the coding wizard has increased level 4 visits 8%, with an estimated yearly production increase of more than \$15,000 per provider. Previously we had employed a copy service for records requests, but now we can do it ourselves and bill for it, netting \$13,500 per year at the Plymouth office alone.

EMR capability has improved the quality of care our patients receive. Our clinic has won quality awards and reached many health plan targets for such measures as generic utilization, diabetic care, and smoking cessation counseling. A patient may come in with a cold, but he or she will likely also receive a review of preventive services, have blood drawn for lab work, and receive immunizations and assessments of chronic illnesses.

In addition to the benefits of the EMR system, there have also been problems and concerns. Many were predictable, such as the initial

steep learning curve that required relearning how to record medical information. Many of the staff and some physicians were not particularly computer savvy. The first visit when information had to be transferred from the paper chart into the EMR took significantly longer. There were periods when the system went down, and 1 upgrade had all of us pulling our hair out.

A few issues were unexpected, however. Some staff have noted that in EMRs, patients with similar complaints tend to sound the same and details can be lost. Others have lamented a slight loss of personal connection with patients because the focus is on entering information into the computer. Particularly hard hit were physicians who had routinely used the dictated note to tell a story about the patient. Most compensated for these losses by using the template options for “fact-driven” fields like past medical history and family history where they could type the “history of present illness” to better capture the uniqueness of each patient. Dictation is still used for more complicated patients and for letters.

### It Can Be Done!

Northwest Family Physicians successfully implemented an EMR over a period of 2 years. While all departments in the clinic needed buy-in for the implementation work, physician acceptance was crucial since no one could sabotage the process as effectively as a recalcitrant doctor.

Anticipating the need for buy-in, we required each doctor to assent orally to the new system during the initial physician board meeting authorizing purchase of the system. Later, the staff was half-jokingly coached to respond to physician grumbling with the comment, “You’re paying for it, you’d better use it.”

During the implementation process, we learned the value of staged implementation, involving all departments in the planning, using existing clinic processes as a starting point, allowing a trial period before a firm deadline to use the new processes, and applying elsewhere what we learned. We also came to rely on individual champions within each department who could help train others, flexible employees who accepted their changing job descriptions, and paradoxically, people who complained—because they forced us to simplify and modify to meet staff and physician concerns.

The clinic administration, staff, and physicians at NWFP became committed to a clear vision of a different way of practice. You can do it too. MPM

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