

## In Record Time: Diary of an EMR Installation

**Georgia pediatric practice discovers that not only is eight enough, it's the perfect number of weeks necessary for implementing an EMR.**

*By Nancy Babbitt, C.M.P.E.*

Mention installation of an electronic medical record (EMR) to physician practices and you get one of several reactions. A few share success stories. The majority share horror stories. A handful describe their de-installation and abandonment process.

For years, the nine physicians, six nurse practitioners, 26 nurses and 40 administrative staff at Roswell Pediatric Center, P.C., in Alpharetta, GA, had wanted an EMR. With three office locations and more than 82,000 annual patient visits, we needed one, too.

With trepidation, beginning in early 2000, a four-person search team (three physicians and me) embarked on an 18-month search to find the right EMR. During the summer of 2001, we selected Noteworthy Medical Systems of Cleveland, OH, in large part for its user-friendliness, with three screens that Noteworthy guaranteed would be customized to meet our workflow and office visit patterns. We purchased the system in August 2001 and said we wanted to be live by November—and we were.

### Initial Planning

After purchase, Noteworthy visited our office to begin planning the project. We discussed our expectations and the scope of the project. We established a team of super users that included physicians and key staff, and this team generated most of the input during planning implementation. The physicians spent only a few hours a week (usually on their day off) helping with customization.

Noteworthy developed a 51-page project charter, the guiding document for the entire process and a key reason we were live on our target date. It defined and assigned roles, responsibilities and timelines, and it documented an understanding among all stakeholders. Noteworthy even outlined risks and introduced a risk management plan, cautioning us about “scope creep,” an attempt to change the agreed upon requirements after the project started.

To accomplish everything in eight weeks, we had to order and install hardware, build the interface with our practice management system and customize the EMR for our clinical needs. Thanks to

well-defined duties in the project charter, most of these action steps occurred simultaneously. We signed the project charter on Sept. 24, 2001, and officially moved into implementation.

## **Hardware Purchases**

To effectively research our hardware options, we used outside IT consultants, EPIC IT, to help. We had to determine whether to hardwire each workstation, especially in exam rooms, or to use wireless. When we decided to hardwire, computer locations in the exam rooms became very important to the physicians.

Convenience at the point of care was significant, but physicians did not want their backs to the patients while entering data. We explored workstations with “moving arms” on walls, but some of the arms cost more than the actual workstation. We debated spending the money on a wireless keyboard and mouse for some or all of the workstations, but decided to wait, hoping prices would come down.

I ordered hardware for 105 workstations, 55 of which would be in exam rooms. We also purchased 15-inch flat screen monitors as well as servers and laser printers. We upgraded some existing cabling and also installed new cabling, and we upgraded our network to handle the increased workflow at an appropriate speed. The hardware ordering process alone took more than five weeks.

We put two computers on rolling carts in case of technical problems at an exam room workstation, stationing one in the nurse exam room and the other in our emergency room. If we experience difficulty at an exam room workstation, we can wheel in a mobile workstation, change printer assignments and keep our practitioners moving smoothly until our IT staff resolves the problem.

One hardware decision I would make differently from the start is to buy uninterruptible power supply (UPS) capability for workstations in clinical areas instead of plain surge protectors. If a practitioner were documenting in a chart and we lost power, we would lose the information on that workstation. After a few months on the system and several power blips, we purchased and installed 15-minute UPS for the clinical workstations. Now, if we lose power, practitioners have time to finish the session on their workstations, where it is saved to the main server.

Also in September, I started the process for an interface with our existing practice management system, ProMed, from VitalWorks. We contracted with VitalWorks for its programmers to produce an interface to Noteworthy’s EMR.

Avoiding duplicate entry of demographic or billing information was a critical part of the project. We also wanted to take advantage of automated charge capture functionality, with physician order entry generating appropriate charge details. On the front end, the practice management system communicates demographic information to the EMR. On the back end, the EMR communicates billing information into the practice management system.

## **Week 1: Familiarization**

After signing the project charter, we kicked off the project. Part of the success of our implementation was because we educated our physicians on what was required of everyone—physicians, nurses, administrative staff—to get the job done. We had commitment from the physicians to attend all scheduled meetings and to stay current with our requests to review customizations in a timely manner. Since our timetable was aggressive, this buy-in at the outset was critical to keep the implementation process moving.

## **Weeks 2 Through 6: Configuration and Verification**

Noteworthy's team initiated a discovery process with checklists detailing exactly what they needed from us to configure the EMR. Three key areas needed input: customization of medical knowledge, workflow and technical information specific to our practice.

The Noteworthy team observed and gathered data, including examples of our existing paper methods. They customized visit outlines, care paths, order sets, reports and document templates. They met every two weeks with Dr. Silverman, our clinical lead, and his team to build our medical knowledge.

Together, we customized more than 90 visit templates, each with a reason for visit as well as links to suggested medications, procedures, educational handouts, and diagnosis and billing codes. We customized the chart's summary screen to contain the information that physicians wanted to see when they first open the chart, plus wellness reminders. Also, we developed templates for the phone triage nurses and timetables for our most common send-out tests, decided on educational handouts and added our referring physician list.

Simultaneously, we had a weekly conference call with all of the team leaders and Noteworthy to monitor and discuss progress of all aspects of the project.

When we approved the final version, Noteworthy tested for four days to ensure the programming was correct and truly matched our needs. We were ready to deploy.

## **Weeks 6 and 7: Deployment**

We developed a system to enter patient history into the EMR. The physicians developed a critical data checklist with detailed instructions for nonclinical staff to enter data. We decided to pull charts daily for patients scheduled for checkups the next day and used temporary staff to enter their histories. During the first visit, the practitioner would review data entered into the EMR and sign off on the paper chart.

Before formal training, we asked everyone to familiarize himself with the program by spending two 30-minute sessions on different days practicing on a demo version of the EMR. After that, Noteworthy provided two hours of formal training to everyone, including temporary employees. We set up six workstations in a conference room training environment and trained more than 80 staff members without limiting our patient schedules. We were ready to use the new system on Nov. 13.

## Go-Live

In pediatrics, Monday is a horrible day to start any project, so we went live on a Tuesday. The vendor kept 18 staff members at our three office locations during that week to support us. Each practitioner had a one-on-one trainer. We had one trainer assigned to each group of triage nurses and to each front desk, and we had a project manager at each location.

Noteworthy had recommended a phased-in utilization. They suggested using the EMR for 30 percent of visits, or every third patient, on the first day, 50 percent the second day, 75 percent the third day and 100 percent by the week's end. The EMR was easier to use than paper. The first day, practitioners used it at least 50 percent of the time. Practitioners and staff even developed a competition to see who could use the system more. By the second day, we were close to 100 percent.

Even though we learned the system quickly, we did tend to run almost an hour behind schedule for the first few weeks. We probably expected too much of ourselves and should have given ourselves more time to adjust.

In our experience, Roswell is an EMR installation success story. Staff and vendor alike dedicated substantial behind-the-scenes effort to planning, analysis and organization, and these were critical components of our success.

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For more information about EMR solutions from Noteworthy Medical Systems, [www.rsleads.com/302ht-209](http://www.rsleads.com/302ht-209)

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