An Oncology EMR Survivor's Guide
Can Your Practice Afford *Not* To Do EMR?

by Scott Gilomen, CPA

Gaston Hematology & Oncology located in Gastonia, N.C., is a six-physician practice that employs one physician assistant, eight registered nurses, seven medical assistants, seven lab assistants, five front desk staff, and six biller/coders. The practice was established 12 years ago, and in 2003, opened a fulltime satellite clinic. In addition the practice has a part-time location open three half days a week. Last year the practice had 2,500 new patient visits. In 2004 Gaston Hematology & Oncology decided to move to an EMR system. Practice administrator Scott Gilomen, CPA, describes why and how the practice did it.

Practice Snapshot—Why We Went to EMR

In 2003 our practice added a full-time satellite clinic. The practice was using Medical Manager® as our billing system, and we were doing everything we could electronically to speed up payments.

Our practice has three Pyxis drug inventory cabinets to help with drug inventory levels and billing. Two Pyxis cabinets are located in our main office and the other is located in our full-time satellite office. The Pyxis system interfaces with our billing system.

The practice was growing, and so were our paper charts. By 2003 we had already started investigating other methods or places to store our paper charts. We were also taking a hard look at our office work processes. With the practice's expansion to multiple sites, our office processes were becoming more complex. During chart reviews we were starting to find an inordinate number of missed charges. Encounter forms were getting lost. Hunting down charts was turning into a full-time job. During a patient's visit, the physician, lab, chemotherapy nurses, and insurance department all seemed to want the chart at the same time. In short, our practice was ready to move to an EMR.

How We Did It

Step-by-step, here's how our practice went from investigating EMR options to implementation.

Getting Physician and Staff Buy-In

If you do not have physician buy-in, you can stop reading this article. Obtaining physician agreement to this process is imperative. You will not be able to get your system off the ground if practice physicians are not invested in the process. Physician resistance to the project will trickle down to all office staff and will be very difficult to overcome. Having a physician champion—preferably your lead physician—will help the EMR adoption process succeed.

Staff buy-in is also critical. Everyone in our office routinely uses the EMR system. Even our non-clinical groups use EMR on a daily basis. The front office uses the system to check patients in when they arrive, scan in new patient information into the chart, and print out medical records for patients. The insurance department uses the system to help with billing and coding issues.

At our practice, we created an EMR adoption committee comprised of our clinical manager, our lead physician, and our practice manager.

Selecting a Program, Vendor, and Product

A basic initial decision is whether to go with an oncology-specific EMR system or a generic system. Oncology-specific EMRs are built around the way an oncology practice does business, adding the ability to order, schedule, chart, and bill chemotherapy. Such components are important in these times of reduced chemotherapy revenues and increased physician workloads. This specificity gives an added level of assurance that all chemotherapy given is billed.

At our practice, the practice manager (me) performed the initial research on EMR systems. I read many articles specific to the available products and then followed up with some online demonstrations of the products.

Our EMR adoption committee discussed what we were looking for in a system. We wanted an EMR that would mimic our office flow and how we do business. We were looking for an EMR system that would provide oncology specific scheduling and treatment tracking and have diagnosis and staging information, clinical trials patient support, help with physician and treatment coding and charge capture, as well as all the basics of a typical non-oncology-specific EMR solution.

Our EMR adoption committee worked together to come up with a functionalities list. Initially, this was a "best case" scenario wish list, i.e., *if you could have everything…what would you want?*

From these discussions, we quickly determined that we needed an oncology-specific EMR, which narrowed the field to just a few options.

Scheduling a Site Visit

Because I had already completed the initial research, demoed products online, and even seen some other product demonstrations, we were ready for a site visit. Our clinical manager (an RN) and I visited an office which was using the EMR system we were considering. The practice administrator offered us the opportunity to visit

was: *if* this system can do what you are saying, and *if* what we are seeing is true…we need to get started. Staff was very curious about the system, but also worried about the change.

Note: When investigating EMR systems, be sure to ask references about their experiences with software support. Make sure EMR support services will be available when your office is open and ask vendors about their average time to problem resolution.

System Configuration

Part of the planning process is determining how your system will be run—central processing (Citrix) or decentralized processing (personal computer). Centralized processing uses a group of servers that run programs centrally, and local computers just receive screen refreshes. No data is actually being processed on the local computer. Therefore, if a computer locks up, or a portable computer is dropped, all you have to do is sign back on after correcting the problem and everything is fine.

With the distributed processing method, the program actually runs on the local computer, and the data has to be retrieved from the servers across your network to process. This method is extremely inefficient if you have multiple locations, because it slows down the data processing time.

If your practice does not currently have a good internal Information Technology (IT) department, get some outside help that you can trust. Purchasing the wrong hardware equipment can really cause problems for your EMR system. Our practice used the suggested hardware list from our EMR vendor, adjusted slightly for our specific office needs.

Your IT staff (or contractor) should be well versed in wireless laptops and tablet PCs, servers, off-site backup methodologies, T1 or other high-speed communications (if you have multiple locations), Web communications, and virtual private networks for remote access. At our practice, I currently handle IT support with the help of a local vendor for items I cannot handle internally.

We currently have one PC tablet for each of our providers. All other staff uses desktop PCs. Going paperless

and see the product in action in a real-world setting. We contacted the vendor and arranged for them to meet us at the site as well.

For our practice, this step helped us not only see the system in use at an oncology practice, it also helped us develop a much more educated set of questions to ask the vendor post-demonstration.

We were able to refine these questions and have them ready when we hosted a follow-up demonstration at our own office. All of our physicians attended this demonstration, which took about two hours. Other staff members attended portions of the demonstration that related to their job areas. Physician reaction was a mix of enthusiasm tempered with skepticism. The common response

means that all staff must have a computer to access patient information and complete documentation. We keep a spare desktop PC available to cover for any potential problems. (For practices with a large number of PCs, purchasing a spare computer can be more cost effective than paying for extended maintenance contracts.) Our practice has elected to purchase extended maintenance contracts on our servers and tablet PCs, but not on our desktop PCs.

If your practice currently has good computers for all staff, the initial costs of using the centralizing processing method will be higher than using the decentralized method, because you will have to invest in new server computers. However, savings occur later on with the centralized method in terms of upgrades and system support.

The EMR systems we looked at had some flexibility, but worked best if the practice was able to change/modify some of its work processes to mesh with system requirements. Make sure you review all of the functionality and use the vendor's trainers to help you fully optimize the system.

In a paperless office if your system is down, you are down. To make EMR work you will need to have redundant servers, backup power systems, and extra computers. Because our practice has multiple clinic sites, we added a gas-powered generator at our main location so our systems would always have electricity. Remember, in multiple clinic situations, if the power is out in the main office but a satellite clinic is up and running—the satellite will not be able to access the system due to the power outage at the main office—unless you've planned for a backup power system.

Nuts-and-Bolts Purchasing Issues
Our contract price was based on a prearranged discount through our group purchasing organization for oncology drugs. The EMR system that we purchased is based on concurrent user licensing. For example, if you have a maximum of 25 people who need to be on the system at one time, you would need 25 concurrent licenses. Our cost was based on the number of concurrent licenses times a rate per license ($5,000 – $6,000 per license). Practices need to carefully evaluate the number of concurrent licenses that will be needed as this can be a substantial cost of your system.

Our training costs were based on an hourly rate. Total training costs for our practice were about $75,000. Again, these costs will vary widely depending on the number of locations, how many people will be trained, and your practice staff's ability to adapt to EMR.

Other costs include any interface work to your existing billing system, outside lab, and CBC machines. In our situation, interfaces added an additional $60,000 to the total price. Costs will vary depending on your

EMR and Your Oncology Practice: Another Perspective
by Amanda Patton

An ACCC member institution that is a nine-physician multi-clinic private practice was an early adopter of EMR. Currently the practice has three sites, one of which offers imaging services (CT scanner and film X-ray). In 2004 the practice saw slightly more than 1,800 new analytic cases with breast and lung being the leading cancer sites.

At this practice, the decision to purchase an EMR—made in 2002—was championed by the practice administrator and one physician. According to the practice's CFO, the decision on some level reflects "a recognition that it's something we have to do to continue to provide quality care over the long run. In our case with multiple locations [we were] looking to the new EMR to improve accessibility of information for doctors who didn't regularly see patients [in a particular location]." In addition, the practice had an aging practice management system that was due for replacement.

How They Did It
For this practice, time from initial investigation to implementation was about 18 months. To kick off the EMR hunt, the practice administrator and IT manager visited a trade show. The IT manager is a full-time staff person, who joined the practice in 1999. This staff member attends to network infrastructure issues. As a result of attending the tradeshow, EMR was included as an item in the capital expenditures process.

The practice administrator and IT manager then began the process of narrowing down the vendors. Initially, the physician champion and practice administrator were the main staff involved in the process. Input from other staff occurred later in the selection process.

Interviewing the vendors by phone, the practice was able to narrow the field to two vendors. At this point, the practice arranged for some site visits, and other clinical staff was brought into the EMR selection process.

In assessing the EMR offerings, the practice looked for the following criteria:
■ *Commitment to the industry and to oncology and cancer care*. The practice wanted a vendor that under-

practice's current systems and how much integration you require. But interfaces can also save your practice money in the long run because effective interfaces often mean fewer staff will be needed to perform tasks.

Hardware costs can also vary substantially depending on what you currently have in place. In our practice, our main hardware expenses were for servers, Microsoft Windows server licensing, and Citrix licensing, at a cost of about $75,000.

Keep in mind that your practice will have ongoing EMR expenses, including the annual software fees and

stood oncology and had a commitment to develop oncology-related software

■ *Stability and service record of vendor*.

■ *Accessibility of data*. The practice wanted to determine how easy it would be to query the EMR database and retrieve information and then present it the ways they would need on an ad hoc basis.

■ *Technical functionality of software*. Would the EMR system do what they needed it to do?

■ *Price*. Cost was a consideration but less important than finding an EMR system that would meet the criteria the practice identified as important.

Return on Investment

The practice's expectation was to realize a return on investment within several years. In reality, the practice began to see some payback on the investment in EMR within 18 months, but the return was not as much as they had initially anticipated.

The practice had calculated on a return on investment in two practice areas: one was related to the billing system and the ability to interface the practice's drug management and billing system. The expectation was that the interface would automate a process that was being done manually. The practice's initial implementation focus was in the practice management side of business operations, e.g., scheduling appointments and billing. This step was achieved within a few months. Here the practice experienced the hoped-for benefits.

The second area of anticipated savings was the potential to reduce medical records staff due to the switch to electronic charting. For this practice, implementation of e-charts has taken longer than anticipated. So, in this area, return on investment is not occurring as rapidly.

The move to e-charting was slowed down, in part, by the need to develop "workarounds" for some pieces of software. Another issue for this busy practice has been finding the time to do all the training and learning associated with e-charting.

The practice is using a two-pronged phased-in approach to adopting e-charting. Two of the practice's physicians have agreed to go paperless for their new patients. At this point, these doctors have about 50 patients whose charts are paperless.

The second prong is to convert certain administrative sections of all patient charts (i.e., insurance information and demographic information) into e-charts. Currently, the practice has in excess of 200 patient charts that have an electronic portion.

Lessons Learned

For this practice, what the vendor has done very well is listen and identify the issues that are important to the practice and get those concerns addressed. In addition, the practice is happy with the company's upgrades.

Two practical take-home suggestions from this practice—pick off the easiest part of the implementation first and partner staff who are most interested in adopting the new system.

For example, scanning the insurance information is a relatively "easy" first step in EMR implementation. Working with the front office and billing staff, this practice experienced no resistance to change. The practice was able transition without major flow issues and without getting a consensus. They could also show a tangible result. "We had something we could point to and say—the chart is thinner than it used to be," said the CFO.

In addition, partnering staff who are most interested in adopting the new system can help overcome barriers to transitioning to e-charting. This practice identified those nurses most interested in e-charting and paired them with the two physicians who have agreed to go paperless.

But perhaps the most important lesson learned is EMR adoption can take a significant amount of time. "Treat it as a long-term project and give yourself some time to get it all digested," advises the practice CFO. And, he adds, plan for the resources needed to accomplish this effort. These resources include not just the financial ones, but that non-renewable resource—time. He suggests that practices moving to EMRs need "someone who is a recognized leader; someone who has to take the time and energy to solve all the little problems."

Amanda Patton is associate editor at the Association of Community Cancer Centers in Rockville, Md.

interface and hardware maintenance. On average, the cost of software support and maintenance is about 15 to 20 percent of the original software costs per year. This cost includes upgrades and is the most critical portion of a successful system. If you do not have good, timely software support, you will not have good results.

As we budgeted for the EMR acquisition, we looked at the estimated cost savings versus the total cost to determine the true effect on our expenses for the year.

In addition, we purchased our system near the end of the year to be able to recognize the tax advantages of paying for the hardware in one year and the software in the next year. Consult with your tax accountant before making this type of large capital expenditure as tax laws change from year to year.

Training

Our training strategy had to plan for three clinic sites and about forty staff. Use your professional vendor-provided trainers wisely as this is a large portion of your implementation costs. In our practice, we used a two-pronged training plan. We started by having six "super

users" trained by our vendor trainers. These "super users" were trained to be the trainers for our practice staff. We chose staff from each of our office's different areas—front office, nursing, physician assistants, insurance, clinical manager, and practice manager. The super users were also the only staff to load any information into the system that could not be automatically populated from our billing system.

We used our paid vendor trainers to train our physicians. We did this to give the best support to our physicians as their questions usually required more experience to solve. This option also kept our physicians going without delay during the transition period.

Practice physicians attended two two-hour classes conducted by our paid trainers before we went live on the system. All practice staff went to one four-hour class conducted by our "super users."

EMR Implementation: Staged vs. Full Assault

Staged EMR implementation occurs in phases. A typical example of staged implementation in a practice would be to start using the EMR for check-in and lab functions, then add chemotherapy, and finally follow up with physicians using the EMR. Our practice went with the full-assault method. We thought that the benefits to starting everything at one time outweighed the difficulties of starting everything and everyone at the same time.

The oncology-specific EMR we purchased starts with the physician. If the physician did not implement the EMR until later, as in the staged method, then all of the orders for chemotherapy, lab, etc., would have had to be entered twice—once in the patient paper chart and a second time in the electronic chart.

However, because we have multiple locations, we decided to break up the implementation by location. We began EMR implementation in our main office site. After completing implementation at the main office, we assessed the lessons learned and built on our experience. This allowed us to finish implementation in our other locations in a more efficient manner.

At each location we brought out one vendor-supplied trainer for the "go live" week and used our "super users" for on-the-job help. We focused on getting one site up and running at a time.

With our staff trained, our interfaces in place, and our physicians on board, we were then ready for the big step—*Go Live.* We had the trainers out for the week we had our "Go Live" to make sure all went well, and then we sent them home. They returned two weeks later to deal with our more educated questions. They were still available via phone to help with day-to-day questions and issues (which is covered by software support), but removing our crutch

Value-Added EMR Benefits

Streamline Office Flow and Operations

EMR forces a practice to take a new look at patient flow. All of the EMR systems we looked at had the ability to check in and track patients around the office. Now our physicians can check a patient's location at any time during his or her visit. If a patient is not in a room on time, it is easy to check the system to see if the patient did not show up at the proper time or if the lab was behind with getting the patient worked up.

Having a handle on patient flow helps practice efficiency in several ways. We can now pull a report from the system detailing step-by-step how the patient moved through our office and the variance, in minutes, from when the patient reached each stage to when the patient should have been at each stage. We use this information to determine where the bottlenecks are in our office flow and adjust personnel needs to streamline services.

One of the main reasons for our decision to switch to an EMR was our practice's multiple locations. Our doctors travel between practice sites. Prior to EMR adoption, physicians would take patient charts with them to complete their work. Charts were ending up in the wrong office, which required that we shuttle charts from office to office. Now everyone has the chart available at the same time, even remotely from any Internet connection.

Interfaces are a key way to gain cost savings and increase staff productivity. Any repetitious items in the practice should be looked at for interface possibilities. We were able to interface most of our daily information electronically with our EMR system. For example, we improved the way we interface with our labs. Most of our external labs go to one company. With an interface, we can now automatically add these to the chart as they are received. Having the actual data instead of scanned copies gives our practice the ability to track trends with an Excel-like spreadsheet or a graphical chart. Our internal CBCs, which are done on our Coulter machines, are also available to our EMR system immediately after being run. These results are first reviewed to make sure

for a couple of weeks forced us to learn the system.

With our EMR system in place, our practice is realizing the clinical functionality we had hoped for (see box on page 36 and 37).

Our practice has been functioning on EMR for over 12 months and would never go back to paper charts. Today we are completely paperless, and our old paper charts have been moved to a storage location. ❦

Scott Gilomen, CPA, is practice administrator, with Gaston Hematology & Oncology Associates, PC, in Gastonia, N.C.

the test completed successfully before being added.

We were also able to improve how we interface with the billing system. For our practice, the biggest time saver and, thus, cost saver is interfacing the EMR with our billing system. This improvement eliminates the need for staff to manually enter encounter forms and reduces the possibility of human error during entry. Without interfaces, these items would have to be manually keypunched into the billing system.

Improve Clinical Workflow

On the clinical side, the biggest benefit has been clear and precise orders. Any order that is repetitive in nature can be set up as a standard order which helps with consistency in documentation. No more trying to decipher what has been written.

Clinical workflow is also improved by streamlining of documentation through the use of questionnaires. Practices can use questionnaires in many situations. In our practice, we use questionnaires to have consistent and complete records for documenting our chemotherapy visits, phone triage, and lab visits. For example, in phone triage the questionnaire includes a list of standard questions the triage staff person would ask. The triage staff then records the answers on the same flow sheet. This method helps take care of the patient issue in a quicker and more complete manner, by making sure all of the right questions are asked the first time. It also makes triage consistent from triage nurse to triage nurse.

The practice was also able to improve its clinical workflow by eliminating the use of "sticky" notes and reminders. Prior to EMR, we had sticky notes and phone notes everywhere in our office. Now all of our notes are done within EMR using reminders. Reminders show up in the system as a "to do" list for whoever was sent the reminder. This list can be reviewed during the day and taken care of when appropriate. Reminders can be sent with different priorities to let the person receiving the reminder know which items need to be taken care of sooner. This also helps with HIPAA (Health Insurance Portability and Accountability Act) compliance.

The audit trail our EMR provides is probably the best tool available for clinical management. This function tags everything entered into the EMR with the date of entry and also by whom the entry was made. Since every person logged into the EMR system has a user name and password, which is only known to them, the audit trail can be used to track down and correct problems. Our practice uses the audit tool to help with training personnel. It is very easy to see who is having repeat mistakes and help that person with additional training.

All of the practice dictations and chart information can now be faxed using the EMR system. The physicians dictate the plan and impression into a digital dictaphone. The digital dictation is then downloaded onto one of our servers. The information is then retrieved by our transcriptionist who works from home over the Internet. She starts the note in our EMR system by selecting a template which automatically creates most of the note and then adds the plan and impression that the physician dictated. The transcription work is then sent to the physician's EMR notes to be reviewed. The physician reviews and changes wording as needed. To complete the process, the physician selects the approve button and the note is automatically faxed to the referring physician and others as needed. Prior to our EMR implementation, this process used to take about two weeks. Now the process is complete in no more than two days. Many of our referring physicians have commented on how quickly they have received our notes.

Our EMR system allowed us to create a system for comprehensive and consistent dictation, and, in the process has freed up much needed office space.

Realize Cost Savings

EMR implementation at our practice has resulted in savings of more than $100,000 per year, which means we should have a return on investment in less than three years.

We have realized savings from reduced staffing needs for chart location, filing, encounter entry, and reduced dictation costs. Our dictation costs alone have been reduced more than $50,000 a year, as our doctors now only dictate their plan and impression. The rest of the note is created automatically from the EMR system. Further savings are realized from reduced mailing costs, as we now send all dictations automatically via fax. ◗

Hot Tip!

One step our oncology practice did not do upfront, which in hindsight we should have done, was to preload all of the current patient history information. This step would have reduced the need for the paper chart and reduced the input for the physician. Not doing this work in advance made all of our current patients feel like new patients to our physicians.

As a result, our practice spent about one month entering our current patient information into our EMR system. This process was a manual one; we had to look in the paper chart and enter the required information into the EMR. Once it became clear that this step would streamline the transition, we began entering this information the day before the patient arrived for an appointment. ◗