Technology: Calculating an EMR's ROI

The case for EMRs in dollars and cents

By Shirley Grace

Recently, all women patients aged 60-plus at Evans Medical Group received a letter in the mail suggesting they come in for either an initial or follow-up bone density screening. Generating the names on this mailing list — or any other cross-section of the group’s patient base — was completely painless for the practice’s support staff, as were the actual mail-merged letters the women subsequently received. Internist Rob Lamberts credits the practice’s new EMR. “We can research certain services for patients who need them,” he says. “This greatly increases office visits.”

And more office visits of course translate into more revenue — one of the many calculable returns on investment (ROI) directly traceable to a well-implemented EMR.

Patient-targeted mail reminders are only one small example of how an EMR can be a lucrative investment in your practice. Many other benefits — both quantifiable and unquantifiable — abound. Regardless of whether an EMR is a reality or a yet unfulfilled desire in your office, assessing the different ways EMRs can generate additional revenue can help you gauge its potential in terms of adding new business, increasingly quality of care, and easing administrative burdens on you and your staff.

ROI before you buy

The path to purchasing an EMR is similar to that of any other big-ticket item. But as the technology has yet to be adopted by the majority of practices nationwide, you’ll want to feel extra good about your ultimate purchase decision. And unless you’re a solo practitioner, you will likely need to persuade your partners and staff of the advisability of such a large investment. The following steps can help you prepare to make your case:

Calculate purchase and implementation costs. The Medical Group Management Association (MGMA) says the average cost of an EMR per physician is $33,000. Expect the implementation — which takes an average of 35 hours — to run around a $100 per hour for customization, training, and IT setup ($3,500). To access the EMR, you’ll need to purchase one tablet PC per physician ($2,500), one workstation for each member of your support staff ($1,000), a network server ($2,000), and some sort of support contract to keep your EMR in tiptop shape ($2,000 to $3,000 per year). If your practice is large and your implementation particularly complex, you may or may not require some in-house IT assistance to troubleshoot day-to-day problems.

And remember that time is money, too. It took East Granby Family Practice, a seven-provider group in Connecticut, roughly 18 months to implement their EMR. Look at your practice’s current revenue streams. How can you maintain adequate revenue during your conversion period? After all, you can’t expect “business as usual” while you take time to digitize your entire office. Ask yourself how many extra patients your physicians would need to see or what coding
levels they should maintain. Will you bring in additional temporary help to scan the paper documents you’ll need to input into your system? Or does it make more sense to set a per-day goal of, say, three charts per staffer? East Granby, which went live on April 1, 2005, spent about $128,000 to implement its EMR. Annual maintenance now runs $15,000. Their financing strategy? A combined approach: The physicians accepted a temporary decrease in pay, and the practice secured a loan.

Determine how much an EMR could streamline your work flow. Thoroughly evaluate your current paper trails. Who needs which forms? What gets unnecessarily copied and distributed? Where are the data error or duplication hot spots? What is the purpose and validity level of each current administrative procedure? Ferret out redundancies and investigate whether an EMR could eliminate them.

Tabulate your current tangible costs. How many dollars does your practice spend each month on administrative duties that an EMR could easily take over? How much are paper supplies eating into your bottom line? Calculate the cost and/or time spent on the following each month:

- Pulling, filing, and locating patient charts;
- Handling prescription refill requests;
- Mailing patient notes;
- Processing patient check-in/check-out;
- Transcribing dictation and recovering lost dictation due to misdirection or data corruption; and
- Maintaining IT hardware and software.

To put a price tag on a task like “pulling charts,” multiply the number of times that task is performed by the time spent on performing that task by the average hourly wage of your support staff. For example, if you’re pulling 500 charts per day, each of which takes five minutes to locate, then the total time spent pulling charts is 41.5 hours. Multiplied by an hourly staff rate of $10/hour, you can determine that the cost of pulling charts each day is $415, and $12,450 per month.

Also include any other tangible costs relevant to your practice’s everyday workings beyond those listed above. Interview your staff about their duties, and draw on your own observations. “We routinely lost four charts a day,” says Phillip Rhoades, executive administrator of the Pawtucket, R.I.-based Orthopedic Group, Inc. “I went around and surveyed or interviewed my staff. There wasn’t a day that went by when I didn’t have someone come to my office and say, ‘Do you have so-and-so’s chart?’ I’d have to go out to the doctor’s car, or it would be under his bed.”

Examine your current coding habits and claim reimbursement levels. Determine the current effectiveness of your coding practices and claims collections. EMR typically directed you to
code at the most accurate level — which is often higher than physicians usually code for their services. Without having to increase your workload, you’ll begin to be reimbursed more accurately for your work, and your EMR’s records will help protect you in the event of an audit. Rhoades says that before implementing its EMR, his practice’s claims stayed in accounts receivable for 80 days. Now, he says, “We’re down to 32 days — the industry standard for orthopedics is 58 days.” Rhoades says this increased efficiency has directly affected his bottom line: “My staff has more time to go after denials and collect two percent more. There are other variables, but part of it is because we have a great note that’s harder to deny.”

Enlist outside help to make your case. Rhoades says his EMR vendor was very helpful with supplying facts and figures to help him sell the idea to his staff: “Vendors helped a lot. They knew what administrators needed to make the case for providing evidence to the board.” Rhoades also tapped the expertise of MGMA, which he says “helped out in terms of providing questions to answer, to put together a cost-benefit analysis.”

Joel Sauer, chief executive officer of the 50-physician Heart Center Medical Group in Fort Wayne, Ind., disagrees. “Never, ever trust the vendor’s ROI calculation,” says Sauer. “Do your own. You need to know what it’s going to cost, when you can expect to get [the money] back. No vendor will tell you your costs will go up temporarily, and not everybody will know that, especially the doctors, [who will ask,] ‘Hey, why’d my paycheck go down?’ I don’t think [the vendors] are trying to mislead anybody, but their information is so generic you have to put it in your own cost structures to make sure it holds up.”

Assess your office’s current attitudes. What is the prevailing climate in your office? Does tsunami-esque paper handling cause tempers to flare and treatment to lag on a daily basis? What daily administrative tasks would your staff like to see streamlined the most? Also consider surveying your patients on their perceptions of how your office is run. What are you currently doing that they really appreciate? What bugs them? Would they use technology to speed up their office visits? Dr. Lamberts says that EMRs can provide patients added convenience not possible in a paper-based office. “Patients can log on from home, request refills, fill out their paperwork for a visit,” he explains. “That means they can be seen right away when they arrive. … What does that allow us to do? See more patients.”

Is it worth it?

David Howlett, a family physician at East Granby Family Practice, likens the conversion from a paper-based office to a digitized one to the birth of a baby. It’s “kind of like labor,” he says. “It’s worth it, but at one time I wasn’t so sure.” Howlett says the painful transition was worth the effort. “One of our NPs recently came in last year for her review and she cried through most of it because of the conversion,” he recalls. “This year she’s happy. She’s retired most of the charts.”

Be prepared for a temporary increase in costs during conversion; in all likelihood you’ll have to hire in temporary help. “We increased our costs in medical records by about $100,000 a year,” says Sauer of his practice’s expenses during its implementation period. But at Sauer’s large, 50-physician practice, that total represents only a few thousand a year per physician. “We weren’t gasping, slitting our throats, or gnashing teeth over that,” he adds.
Allow at least one year for the conversion, preferably two. Hold off on calculating a follow-up ROI until you’re certain the system is running smoothly, that all physicians in your group are on board, and that the incoming data is being effectively streamlined into accurate reports. Then when you present your ROI figures to your providers or board of directors, your numbers will most accurately illustrate your new system’s performance.

Once you’ve calculated what you feel is the most accurate snapshot of your EMR’s ROI, compare your current costs and expenses to those you gathered pre-implementation. Here’s what you can expect:

**Lowered spending** — Expect your previously benchmarked costs to drop. At East Granby Family Practice, for example, the difference in chart pulls was marked. Howlett says, “We started at some ungodly number, like 1,200 chart pulls per day. Now we’re down to zero.” And that’s not all: “We had two transcriptionists. We’re down to one. Instead of [our costs] going up eight percent a year, we’re now down 10 percent. Our savings is probably about $12,000. Nursing staff [costs] stabilized — down about $6,000. Next year we’ll have some attrition, post-conversion. But I expect a savings of about $19,000.”

**Improved work flow** — Transcription reduction is certainly important and useful, but you can expect the rewards from your efforts to expand from there. Lamberts now sees his staff employing much more efficient work habits. “It takes my staff far less time to do a referral. The whole system is sped up,” he says. “The thing it cuts down on is the time you spend searching for info — Where’s that consult report? Where are those labs? It’s always in one place.”

**Better patient care** — “The return on investment in patient care is huge,” says Howlett. “They’re impressed. They see us walking in with a laptop. When we’re clicking the buttons in front of them and say ‘[the prescription] is going to your pharmacy,’ that has a positive effect.” Overall, your physicians will find themselves spending much less time fiddling with clerical work and spending more time with their patients.

You may find that you now have more time to devote to preventive care. “We thought we were doing a good job before, but we caught a lot of things, like those who hadn’t had a tetanus shot or mammogram for a couple years,” says Howlett. “Now we’re much better. Most doctors didn’t do a lot of preventive care unless the patient came in for a physical. Now we’re doing a partial physical at each visit.”

Finally, effectively using your EMR can lower your risk of medical errors due to treatment outside the clinical norms, misplaced charts, or poor documentation and communication. In addition, some EMRs provide prompts during patient visits that alert you to new developments within the medical community regarding treatment, medication, complications, recalls, etc.

**Quality of life** — Although very difficult to measure in quantitative terms, achieving a better work/life balance is nevertheless an important ROI. “One of the unexpected immediate benefits was that you could go home and have dinner or go to your kid’s ballgame, and then later on at night finish up — fill prescriptions, finish notes,” says Howlett.
The early investigator gets the ROI

No two practices operate exactly alike, so you’ll have to tailor your ROI calculations to your own unique business situation. So if you have not yet taken the EMR plunge, work to benchmark as many quantifiable factors as possible that your practice stands to improve upon after implementing a paperless system. “You should get these baselines before you start, because a year or two into it people forget,” says Rhoades.

Howlett emphasizes that to maximize ROI, a practice must have its administrative ducks lined up beforehand: “Our practice is very frugal and very well-managed. Our philosophy is that if we need [an EMR], we’re going to get it and use it and pay enough to make it work well. Our collections were always good. If a practice is not like this, [calculating projected] EMR ROI won’t really help.

But nothing will increase your ROI as much as taking the time to fully comprehend the power of your EMR and using it to its highest potential. “The value is what you’re willing and able to get out of it,” says Lamberts. “If you understand what the EMR can do, you’ll have a much better ROI.”

In Summary

An EMR is a major financial investment for your practice. Help ensure its success by taking time to investigate the system’s ROI before and after purchasing:

- In the pre-purchase phase, gather as much information as possible through financial documents, staff interviews, personal observations, EMR vendors, and other sources.

- Tabulate your tangible costs and note intangible benefits as well.

- Expect your conversion time to last one to two years, with a temporary dip in revenues before your practice recoups its costs.

- After all data fluctuations have settled and your staff is fully trained in the new technology, gather the same information you did before implementation and compare figures.

- Maximize your EMR ROI by taking time to fully investigate all the features of your system, and garner 100 percent commitment to success by everyone on the staff.

- To access a handy online EMR ROI calculator, go to the Physicians Practice Web site, and click on “Tools” in the menu bar.

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