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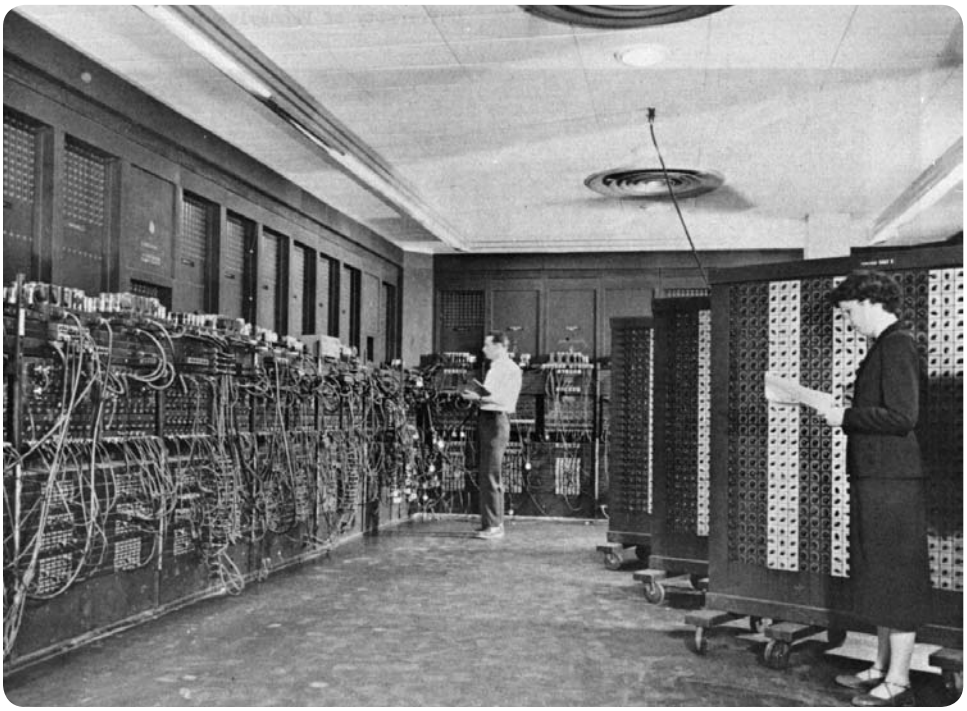
Orthopedics This Week

Reconstructive Surgery for Electronic Records

By Evan Steele, Guest Writer



ENIAC, one of the earliest computers, was advanced technology for its time but still far from practical or convenient.

Next to getting our economy back on track, revamping our nation's healthcare system is at the top of President Obama's agenda. At the forefront of this conversation is the role of electronic medical records (EMRs). EMRs have the potential to improve quality of care and reduce healthcare costs by eliminating duplicate tests, reducing medical errors, and providing clinical decision support. However, despite all the potential benefits, EMR adoption rates among American physician offices and hospitals are dismally low, especially in orthopedics. Why is this technology struggling to take root?

The designers of traditional EMRs, which were introduced to the physician market in the 1990s, aimed to capture clinical exam notes in a structured format. Their goals were to reduce paper flow, provide easy access to clinical patient data and eliminate transcription, a major cost of both time and money. To accomplish these ends, the designers built traditional EMRs on a platform of data entry, requiring documentation of patient exams via point-and-click templates. Traditional EMRs compete with each other by offering increasingly complex features, features which have become the basis of certification by the Commission for Certification of Healthcare Information Technology (CCHIT).

Unfortunately, the impact of traditional EMRs on physician productivity has prevented their widespread adoption. Fifteen years after their introduction, only 17% of physicians have successfully adopted EMRs, and only 4% of physicians are actually using their EMR to the full extent of its functionalities (DesRoches, Dr.P.H., Catherine M., et al. "Electronic Health Records in Ambulatory Care—A National Survey of Physicians." *New England Journal of Medicine.* 18 June 2008; 359: 50.). Ironically, transcription—a primary impetus for EMR adoption—has not been eliminated for the majority of even the most adept EMR users. The typical EMR is neither physician-friendly nor particularly easy to use. According to a government-funded study by the Medical Group Management Association, EMR implementation results in up to a 15% decrease in productivity, usually lasting a year or more (Gans, David N. "Off to a slow start." *MGMA Connexion,* 42. Oct. 2005.).

It's no wonder that busy physicians aren't jumping at the chance to fully digitize their practices. EMR adoption rates among orthopedic surgeons have not even reached the levels quoted above. Acceptance of traditional EMRs has instead occurred predominantly among lower-intensity, lower-volume primary care practices—the type of physicians for whom they were designed. As the EMR market continues to evolve, vendors have begun to focus on the segments where their models demonstrate the best fit, withdrawing from markets that do not fit and resigning from the difficult challenge of building EMR technology that works well for every doctor across the country.

Many orthopedic surgeons view the industry with a healthy dose of well-founded skepticism. This is partly due to the high patient volume of orthopedic practices and the high financial value associated with each office visit. When physicians see as many as 40–60 patients per day, and these office visits generate on average over $200 in revenue (after resulting procedures, tests, and surgeries are factored in), even the slightest decrease in physician productivity has a dramatic impact on revenue and an even greater effect on profitability.

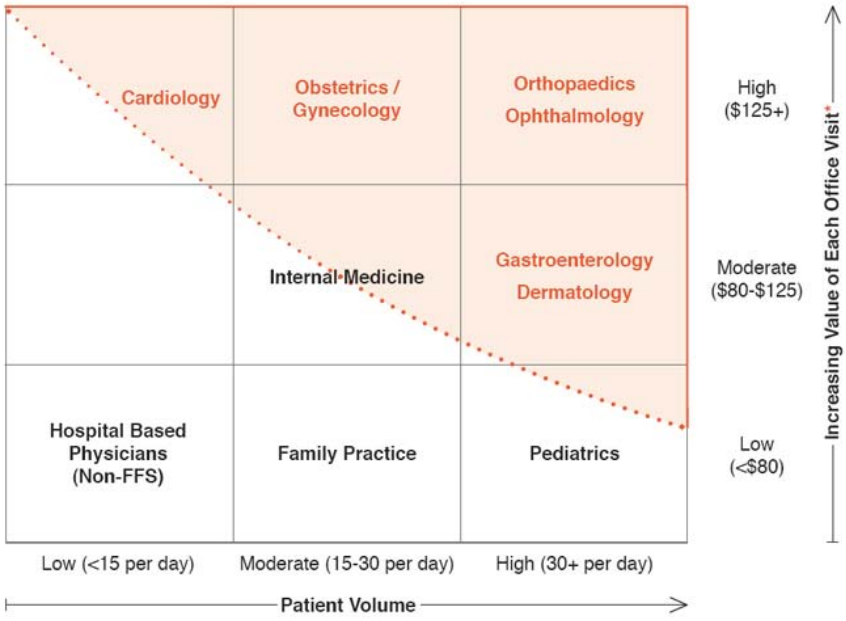
Fortunately, there is an alternative EMR model, the hybrid EMR, which aims to solve the problems of traditional EMR technology. Many orthopedic groups, such as the 123-provider Campbell Clinic and the 75-provider Rothman Institute, have successfully adopted this alternative EMR technology, but there is still a long road to take toward widespread EMR adoption across the country.

The designers of hybrid EMRs researched the clinical workflow in orthopedic practices and pinpointed some of the inherent problems in traditional EMR technology. Cumbersome drop-down menus and overwhelmingly detailed templates force physicians to point-and-click their way through many screens. Complex data entry interferes with the patient-physician relationship and changes the way physicians document patient exams. Rather than require the collection of massive amounts of discrete data, hybrid EMRs allow physicians to identify up front the data they are interested in reporting and limit data entry to the targeted information.

Time-motion studies illustrate just how much time it takes physicians to complete some of the common tasks while conducting patient exams and documenting clinical information. For example, opening a scanned image can require as many as eight clicks of the computer mouse in traditional EMR software. Approving a prescription request can take 11 mouse clicks. More efficient EMR software can open a scanned image with just one click and approve a prescription request with just three clicks. Counting out clicks may sound unnecessary, but the total time these extra steps take away from physicians is anything but trivial.

When aggregated over the course of a typical session of office visits, a more efficient EMR could save physicians enough time to allow for additional patient visits. Sensitivity analysis demonstrates that for the average orthopedic surgeon, (who generates

The High Performance Physician



*Office visits generate ancillary tests and procedures revenues. Therefore, the value of each office visit is the total annual revenue generated by a physician divided by the number of office visits per year.

Source: SRSsoft

$1.1 million in revenue and conducts 125 patient exams per week), approximately $1,900 in additional revenue is generated for each second saved per exam.

Source: Screenshot of the SRSsoft Hybrid EMR with in-program access to PACS images.

Clearly, there are aspects of traditional EMR technology that need improvement. When a physician opens a patient's digital chart, he/she should immediately see all of the vital clinical information available in one view without having to search through the system for needed information. Oftentimes, when using a traditional EMR, if a physician wants to view information in another application, such as a PACS (Picture Archiving and Communication System) image, he/she must open the application, find the document/image, open it, and then toggle back and forth between programs. EMR software should allow access to PACS images, as well as other technologies, directly from within the EMR. Then, instead of reducing productivity, EMRs would save the physician valuable time.

In addition to allowing for more patient visits, efficient EMR software can also enhance patient care. In a digital office, physicians can access, search and share complete and accurate patient information. Access is available at any time and from anywhere with an Internet connection, facilitating informed medical decision-making as well as increased responsiveness to patients. Good EMR software should also have an orders management tool to identify patients for follow-up when test results remain outstanding due to lack of compliance or lost reports.

Because most orthopedic surgeons still prefer to dictate their notes, EMR software should allow the physician to focus his/her attention on the patient rather than the computer. Instead of generating robotic, templated notes, a physician-friendly and patient-friendly EMR should have simple methods of integrating the doctor's notes with the patient's record. For example, dictations could be typed directly into the digital chart by an in-house transcriptionist or transcriptions could be returned electronically, automatically messaged to the physician for approval, and automatically filed into the correct chart, eliminating the need to print, manually circulate, and file.

For physician offices, efficient EMR software provides practices with opportunities to increase profitability by reducing costs and by creating new revenue avenues. The medical records staff in a digital office is much smaller than one in a traditional office. Multiple staff members can also access the same chart simultaneously. EMRs with a messaging system which includes a message pooling function allow the practice to route some tasks to a group of staff members, rather than a specific person, so that the first available staff member can respond. This makes maximum use of existing staff by distributing workloads more evenly, eliminating down-time, and also tends to reduce overtime expenses. With a streamlined workflow, the staff is free to focus more on patient care.

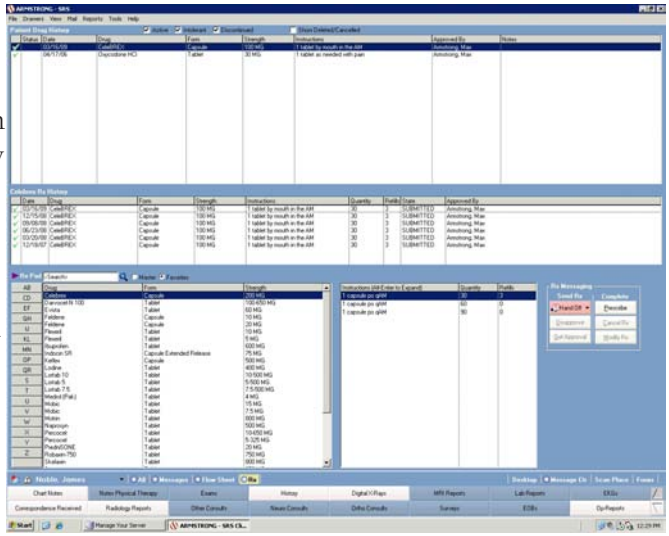
Integrated modules for ePrescribing significantly increase the efficiency of the entire prescription process, eliminating the need to search for the patient's drug history, handwrite the prescription, and manually document it in the chart. In addition, the resulting increase in responsiveness to patients dramatically reduces the number of patient calls that take up valuable staff time.

Medical malpractice insurance carriers in many states also recognize the value of reducing error and malpractice exposure. When orthopedic practices adopt EMR software, they can often negotiate premium discounts based on mitigation of liability risk.

Successful conversion from paper charts to digital charts frees valuable office "real estate" for revenue-producing purposes. Depending on the configuration of the storage space, chart rooms can be converted to additional exam rooms or diagnostic procedure rooms.

ePrescribing and Physician Quality Reporting Initiative (PQRI) are two government incentive programs

that represent other revenue opportunities for orthopedic practices to take advantage of today. Successful participation in each of these programs currently rewards physicians with a 2% increase in their Medicare revenue. Workflows built into efficient EMR software make these returns achievable without requiring excessive effort. Along with the quality-of-care benefits that result from participation, the financial rewards can be significant for practices with sizable Medicare populations.



Source: Screenshot of the SRSsoft Hybrid EMR's ePrescribing module

With an EMR technology that makes the office run smoothly, physicians can also avoid having their work spill into their free time. Many physicians have to work long after their last office visit reviewing charts, answering messages and writing prescriptions. However, efficient EMR software helps physicians and their staffs work through these tasks during normal hours. That translates to more time at home for family and hobbies.

The government believes that EMRs are crucial to the future of high-quality, affordable medical care and is using the Economic Stimulus plan to encourage adoption. As of the writing of this article, the specifications for this technology are still under discussion, but the government must open the door to alternative and innovative EMR technologies, such as hybrid EMRs, which take into account the needs of high-performance specialists such as orthopedists. These strong EMR products exist on the market today, and physicians no longer have any excuses for putting off the switch from paper to digital. If the government can align its goal of revamping healthcare with the needs of physicians for this efficient EMR technology, then the widespread adoption of EMRs could finally become a reality.

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