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The Secret Code

by Nikos Valance

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Billing software and service organizations take the mystery out of improving productivity.



In a world consisting of 8,500 CPT codes, 16,000 or so diagnosis codes, untold numbers of supply codes, and endless rules about medical necessity and bundling, it's no wonder that hospitals and radiology centers are looking for help.

According to *Perspectives in Health Information Management* (fall 2006), when a group of highly trained coders was asked to code, then code again, the same set of notes 4 weeks apart, they agreed with their own CPT choices only 85% of the time, and with their own ICD-9 codes barely more than half the time. And, of course, payors make matters even worse, with each throwing in its own coding and billing regulations.

Evaluation and management codes are the primary means to characterize, report, and bill the office care almost all patients receive from physicians. According to the Centers for Medicare and Medicaid Services, in calendar year 2005, more than half (53%) of the top 110 Medicare Part B procedure codes (ranked by charges) were E/M codes. The charges attributed to these codes were over \$28 billion, more than one quarter of total Medicare Part B charges.

Clearly, some help would be appreciated. Many these days are finding it with computer-assisted coding applications. These tools aim to make coding more of a science than an art—and to keep you in the black money and out of the red ink.

That's because the adoption of information technology in health care is anticipated not only to improve the delivery of patient care, but also to revolutionize the way health care is organized. A recent report from the Institute for Health Policy Research suggested a conceptual model of health information technology adoption with four main influences: 1) financial incentives, 2) technology, 3) organizational factors, and 4) legal and regulatory issues.

Barriers Identified

Recent research by the American Health Information Management Association (AHIMA) indicates that several surveys and studies have already examined the adoption of health information technology in physician practices and medical groups. The findings of these studies are consistent. Larger practices are adopting EHR technologies more quickly than smaller practices. These studies also find a similar set of barriers, including various financial and organizational considerations. Financial considerations include the cost of technology and the return on investment, as well as lost productivity during implementation and additional ongoing costs for system maintenance. Organizational considerations include a lack of administrative and clinician support, along with doubts about ability to select the best EHR system, lack of user skills with the EHR, and security and privacy concerns. And, of course, a critically important point is whether and to what extent an EHR supports effective performance via a diverse array of clinical and administrative functionalities.

The most basic coding software is the encoder, and there are a variety of coding software groups to choose from. Some top names in the field include CodeRyte and MedSolutions. Other well-known vendors are Encoder Pro, Code Correct, and Flash Pro. Encoders put your CPT, ICD-9, and HCPCS book—plus many other resources—in an electronic format so it's easy to look up codes. You can type in the name for a procedure or problem, say, ankle fracture, and get a list of possible codes. Or, if you get a denial, you can use an encoder to try to figure out why.

Gail Fowler is the chief operating officer at Evolutions Medical Billing and Solutions, a Missouri-based practice management, medical billing, and collections service. The company maintains a solid focus on billing for radiology clients, hospital-based imaging centers, and physician offices. Headquartered in St Louis, the company serves 24 clients nationwide and employs 25 full-time and five part-time staff members. Fowler said the company recently declared itself a completely electronic organization, although she acknowledges that as recently as 2005, the company was drowning in paper and losing money on the inevitable storage, courier, and shipping costs. The backlog and paper threatened the company's overall growth.

A key moment occurred in the fall of 2005 when Evolutions experienced a tremendous growth spurt after one of its existing

clients signed six additional hospitals. At the same time, the company gained a large client based in Florida and annual notes exploded to 200,000. Something had to be done. "Well-trained coders are a very costly part of the business," said Fowler. "We found that we couldn't effectively keep up with the increased volume. That's what pushed us to automate and use a coding software." Evolutions evaluated the field of vendors and went with CodeRyte. Through natural language processing technology, the software identifies correct billing codes from clinical information in medical reports. It is a context and confidence anchored technology, which recognizes subtle language nuances such as negation, context, and time references in medical records.

According to Fowler, the investment, which was costly, has paid off. The company has saved nearly \$1,000 in overtime every month. Shipping costs are down nearly \$10,000 annually. It has reduced full-time coding staff from eight to three through attrition. And turnaround time was cut from 6 days to 24 hours. "The cost savings added up very quickly for us," said Fowler. "And because we're using a computer-assisted coding process as well as a charge entry system, it has reduced the possibility for errors and delays tremendously."

A particular benefit, said Fowler, is the enhanced ability to give physicians feedback. Evolutions sends a newsletter every month to its clients advising them on what to do and what not to do. "Now," said Fowler, "the areas for improvement and education become evident much more quickly through specific examples. That makes physician training and reimbursement that much more effective. And we can request information from the vendor to compile and compare data on how our group of physicians stacks up against other groups in similar environments with regard to dictation habits, how coding is going, and what diseases they're seeing. There's an entire range of medical analyses available."

Productivity Up, Denials Down

The Radiological Associates of Sacramento Medical Group (RAS) is California's largest private radiology practice. It consists of 71 physician partners and more than 900 employees who serve 23 facilities—16 freestanding diagnostic imaging centers, seven radiation oncology centers, and six hospitals in the Sutter Health System. The group codes and bills about 1.1 million procedure reports each year with a 75-employee accounts receivable department.

Also a CodeRyte client, the company had 6.5 budgeted coding full-time employees (FTEs) on its books at the time RAS implemented the software. Almost 2 years later, the company has nearly tripled coder productivity, reallocated the work of more than three FTEs, and reduced denials in some categories by more than 25%. Since reports now go straight from the Misys RIS at Sutter into CodeRyte, RAS was able to re-assign most of the three FTEs who used to do the manual sorting, reconciliation, and hand-entering of codes back into the billing system. "Not only did this reduce costs," said Michael Gonzales, RAS accounts receivable manager, "data entry errors were eliminated too. Sending reports directly to the engine also reduced the time from date-of-signing to date-of-posting from 2 days to just 1."

Gonzales adds that the software helped the RAS coding team to boost productivity from about 40 to between 80 and well over 100 notes an hour depending on the types of reports coded. "We've also been able to accommodate new growth with the reduced staff level," said Gonzales. "We've brought three new clients on and can accommodate them with the existing staff, which is handling about 500 exams per day."

RAS staff is also extremely satisfied with the changes. "It's also allowed me to send two coders who work from home. The software allows a secure environment, so it doesn't matter where they are," said Gonzales.

The automated system has also provided RAS' coding supervisor with the ability to see the entire coding process at once so that staff can be monitored and work reassigned on the fly to keep the operation running superefficiently.

Gonzales explains that one of the major efficiencies offered by the system he chose has to do with its handling of data. The system sorts reports that have been processed through the engine into three queues based on the statistical confidence of the codes generated for each report. Reports with the highest scores are classified as confident. Reports classified as review require a quick scan by coders "who are now really auditors," said Gonzales. The remaining reports—fewer than 10%—lack sufficient information for the software (or humans) to code or contain language that the software hasn't seen frequently enough to know how to code.

Initially, there was a 100% review of all reports, even those labeled confident. "Based on those results, we were able to build our confidence level," said Gonzales. Once his team was comfortable that the rate change on the confident codes was negligible, they were able to send the reports in this queue directly to billing. "As a quality assurance measure, we still review 10% of these notes to make sure the changes stay negligible," said Gonzales.

Happier Staff

In Houston, John Garrett is the director of business development at RMI Physician Services, which specializes in radiology billing and collections. His company adopted automated software approximately 1 year ago. "We evaluated internal ops and saw that the coding and charging entry areas were areas of fat. We felt we could gain more efficiencies, and that's when we started looking seriously at automated coding services."

RMI has been very happy with the results. "But implementation takes a full commitment by the company," said Garrett. "It's not plug and play. It takes a full effort."

In addition to the increased efficiency and quality of the coding, Garrett said there is one benefit that the company didn't anticipate. "We're definitely seeing a higher level of job satisfaction from the staff working with the coding product," he said. "They're working on more challenging reports and less on the mundane stuff like chest x-rays. Now they get to work on ultrasounds, CT scans, and MRIs. These exams require a higher skill to code level and it's creating an unforeseen benefit. We didn't have the foresight to anticipate the new system would create happier employees."

Since automating, RMI has reduced its coding staff by 30%, but Garrett acknowledges its savings could be even higher—closer to 50%. "We're seeing less savings than we could, but merely because we don't fully leverage the product," said Garrett. "We review and audit a much higher portion of charges than necessary. We have always been considered a superior service provider, so we felt it was worth it to maintain that extra level of staff to scrutinize what's coming through. But we've also added more clients, so we'll be able to hold onto the extra staff in any case."

Anne D'Amico, radiology business manager at Shands Health Care at the University of Florida in Gainesville, oversees a hospital-based system in which the physicians were rebelling against diagnostic coding. "At that time," she recounted, "we needed to find a solution for the MDs and auto coding was coming into its own. It was the answer to a very big dissatisfaction. We originally went into it for diagnostic coding and are also using it now for CTP coding, modifiers, and edits."

While implementation in a hospital setting added an extra level of complexity, the investment has been well worth it. Efficiency is much higher, and there's much more uniformity with the coding. The team is now reading and touching every single report from the 200,000 that go out each year. The doctors and the hospital have the same procedure codes and diagnostic codes. And whereas before the coders had different interpretations, the variance is now limited. "The accuracy is much, much better," said D'Amico. "There is an engine check and a human check. And I don't spend nearly as much time messing around with accounts moving through this piece or that piece. People can now think more about the work and what's in the reports and not the little questions about data."

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