Lean Coding Machine: Facilities Target Productivity and Job Satisfaction with Coding Automation

By Genna Rollins

Facilities are turning to coding automation to help manage the volume of electronic documentation, streamlining workflow, boosting productivity, and increasing job satisfaction. As EHR adoption increases, computer-assisted coding may become a necessity, not an option.

The phrase "computer-assisted coding" once conjured up an image of coding without coding professionals. However, as more organizations use CAC or plan implementations, their reasons for doing so are not based on downsizing staff. They are focusing on increasing productivity by streamlining coding workflows and managing the high volume of documentation that electronic health record systems generate.

CAC programs use structured text or natural language processing technology to automatically generate codes based on clinical documentation, which coders subsequently review and validate.

"CAC is not going to eliminate the need for coders," says Susan Belley, MEd, RHIA, manager of coding and documentation improvement at Cleveland Clinic. "With CAC they'll be able to function at a higher level and spend more time on issues and concerns that require increased time and skill. CAC is where the coders' critical thinking skills will be more necessary."

Cutting through the Complexity

With selection of a new vendor in its final stages, Belley's priority is to implement CAC in the inpatient realm first. "That's where our productivity issues and reams of data are," she explains. "The complexity of cases is there, and that's where most of our coding challenges are."

A tertiary academic medical center, Cleveland Clinic has more than 1,000 beds and is a major referral hospital regionally, nationally, and even internationally. That degree of sophisticated care is reflected in the organization's medical records, the complexity of which has only increased with the migration away from paper records.

"Since the introduction of our EHR, we've seen a tremendous increase in physician documentation that coders have to read through," Belley says. "Our coding productivity declined when we implemented the EHR because of the increased volume of documentation."

Marking Productivity Gains

Chipping away at that lost efficiency is a major motivation behind Cleveland Clinic's plans to implement CAC. "We're looking to increase productivity. When we've spoken with clients of the products we're considering, they've all said they've experienced 15 to 30 percent increases in productivity," Belley says.

Whereas Belley is looking forward to the possibility of productivity enhancements, her counterparts at the University of Pittsburgh Medical Center (UPMC) can vouch for such gains. "Increased coder efficiency, accuracy, and productivity-all the things we hoped for came through," says Adele Towers, MD, MPH, medical director of UPMC health information management.

UPMC measured a number of metrics before implementing a CAC system in September 2008 and has been able to document impressive performance improvements. Coder productivity increased 20 percent, overtime declined by 85 percent, and the

percentage of coding changes recommended by an external coding audit firm declined by 50 percent. As the benefit of this service declined, there was less need for it, so UPMC saw the related fees decrease by about 60 percent for an estimated $500,000 annual savings.

Like Cleveland Clinic, UPMC chose to implement CAC in the inpatient arena first, due to the increased complexity of the coding process after an EHR implementation.

"Before we implemented this system, a coder could spend an hour or hours looking through voluminous records to determine whether certain documentation exists," explains Nancy Soso, MS, RHIA, senior director of UPMC health information management. "They had to look in multiple places and open and close six or seven different applications throughout the day. That's all gone away now."

Other organizations have elected to implement CAC in the outpatient realm first, but at least in the case of Partners Healthcare in Boston, the main reason for doing so was similar to hospitals like UPMC that launched CAC for inpatient services.

"No one liked the operating system we had before," explains Kristie Thibault, CPC, RCC, operational manager for the ancillary coding team. "It required many more keystrokes than were necessary, and it was very user unfriendly, so much so that it was hard for us to retain coders."

Frustration with the old system was so high that Partners took the risk of being a beta site and worked with a vendor to develop the system it uses today. The effort was well worth it, according to Thibault. "We've been able to retain all the employees who were here when we went live. Everybody on the team is satisfied," she says.

Enriching Work Life

The thinking behind inaugurating CAC in outpatient coding is that it typically involves a high volume of the same diagnoses and procedures, such as mammograms or chest x-rays. While that is true, Thibault emphasizes that one of the main benefits of CAC is that it enriches coders' work experiences.

In the past, coders at Partners might have coded seven mammograms in a row, then one x-ray, followed by two CT scans, and so forth-a real smorgasbord of patient records. In contrast, the CAC application "queues cases in each modality so the coder stays focused on one element-like mammograms-until that queue is completed," she explains. "The variety is broken up in blocks, and it's not up and down and all over the place as it was before. We're also able to rotate the coders every couple of months to different areas so they keep their coding skills sharp."

Towers concurs that coders generally will see only benefits from CAC. "Our coders only have CAC and an encoder to work with. So from a workflow standpoint, the changes are significant and positive. There have not been negative changes associated with CAC," she says.

Just about any healthcare facility will see gains from CAC, unless it has only a minimal EHR, Soso adds. "The more electronic your environment is, the more beneficial CAC will be. If you're in a mostly paper environment with few electronic elements, your returns will diminish substantially," she advises.

The impending transition to ICD-10-CM/PCS is another reason some organizations may be considering CAC.

"The volume of coding and how it is structured will be completely different with ICD-10," Soso says. "We'll be able to code things to a higher level of specificity, but if you're still manually coding it will take much longer to learn and be efficient."

Getting to What Is Essential

Organizations that are considering CAC need to look carefully at what the various systems offer, Towers notes. "Not all the products out there are alike," she says. "You have to do a pretty thorough analysis and find the one that works for you."

Towers and Soso both recommend making site visits to facilities using systems under consideration. They recommend watching coders use the systems and providing a sample of at least 50 cases to compare the results to your existing system.

Thibault advises looking at your organization's current billing cycle and ICD-9 workflows. "You'll quickly realize how many steps you're using. We eliminated 12 steps from our process and went from 65 days A/R to a low of 34 days," she recalls. "Rejection rates and billing cycle lags also decreased."

It is clear that CAC can have a positive impact on coders' workflows and work lives, along with other benefits. But new software always carries the specter of failed implementations and unfulfilled promises.

However, in this case, Belley believes those fears are unjustified. "For people who are skittish about CAC, I'd say you'll be giving your staff the full complement of tools they need to ensure they code everything that needs to be coded," she explains. "We have a technical challenge in that there's so much more documentation in the EHR, and CAC enables the coder to be like a surgeon cutting through the density of data to get to what's essential."

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