# Computers, Coding, and Change



*by Chris Dimick*

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*Computer-assisted coding won't eliminate the profession, but it will change it dramatically.*

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Mythily Srinivasan thought she was out of a job. Out with human coders, in with computer-generated coding. At first that seemed to be her facility's master plan.

When word first came to Srinivasan, CCS, and her fellow coders that the Robert Wood Johnson University Hospital in New Hampshire was implementing computer-assisted coding (CAC), they feared the worst.

"Like everybody else, I thought, 'Oh my god, is it going to come and am I going to be replaced?" says Srinivasan, now the coding manager at the hospital and a 17-year coding veteran.

With its implementation in spring 2006, what Srinivasan soon found out was that CAC secured her job and made it better. Her fear soon melted into appreciation for a technology
that has eliminated some of the mundane coding tasks and in turn enabled her to better use her unique skills.

"Now [coders] are very comfortable with CAC, because you really need manpower to evaluate the codes [and] ensure they are coded correctly and according to the guidelines," Srinivasan says. "There was a lot of input from the coders when we initially started this. And I think it allowed the coders to see that their coding knowledge base and judgment was critical to the coding process [and] that the system was truly an aid."

With more and more healthcare facilities implementing CAC, many coders are wondering what the future holds for their profession. Some have a similar first impression as Srinivasan—computers will eliminate humans.

Some coding positions are at risk of deletion. Others will require an increased emphasis on advanced skills. But several HIM experts say coding professionals will always be in demand, no matter how advanced the technology becomes.

## A Twilight for Routine Coding

Layoffs in the coding department are a possibility due to CAC. But the first jobs to be cut are typically bottom-tier positions that are difficult to fill, even when there isn't a coding shortage, says Becky DeGrosky, RHIT, a former coding manager and current product owner, clinical products at Accuro Healthcare Solutions, based in Dallas.

That includes outpatient radiology coding and GI lab coding. Most organizations introduce CAC in radiology, due to the high volume and highly standardized documentation generated there.

But the technology is never going to replace jobs that require analytical skills, DeGrosky believes. "There are two levels of coders in my mind," she says. "There are the real coders, they are like hen's teeth, they are very hard to come by. These are the people that actually read the record and make the decision not just what codes to assign but 'what am I supposed to be coding here.'"

This type of coder holds different skills than those who are coding primarily for billing purposes on routine procedures. The latter code "for radiology, the cath lab, the GI lab-those are the kind of folks that computer-assisted coding is going to definitely replace," she says. However, that time is still several years off, and as good as the technology is right now, no system is being granted unmonitored coding rights.

## Security in Learning

Radiology coders and others affected by CAC can move to new roles, if they are professionally versatile. In general, the more educated a person is on coding, DeGrosky says, the safer his or her job is.

That doesn't necessarily mean people must rush back to school. Some coders express worry that CAC will require them to get formal degrees to keep their job. DeGrosky believes properly trained coding professionals who keep up on their credentials already have most of the formal education they will ever need to work beside CAC. However, as the industry changes, coders may need to brush up on their schooling.

Coders will most likely need to hone the coding skill that makes them unique as humans—critical thinking. Understanding disease processes and pharmacology, and having sound familiarity with anatomy and body systems will ensure coding professionals have their place alongside coding technology, according to Cecilia G. Hilerio, RHIT.

Hilerio, director of health information services at Robert Wood Johnson University Hospital, says that coders will require this knowledge as their role transitions to coding oversight specialists. This education will come from both in-house training and formal schooling.

"I think that the coder is going to have to be very keen on investigating further into the medical record, whether it is a hybrid record or a complete electronic record," Hilerio says.

## In the Near-term, Automating the Grunt Work

CAC codes procedures that many people currently don't want to do. That was the experience at Massachusetts General Physicians Organization in Boston, a subsidiary of Massachusetts General Hospital.

In 2001 the facility instituted a CAC program in its radiology department because the facility couldn't retain coders to do the work. "We had a backlog of exams, and we had a difficult time retaining qualified coders to do that type of coding," relates Gloria Johnston, MBA, RN, CCS-P, CPC.

Johnston, a former associate director of coding for the organization, worked at the facility during the CAC implementation. The coding that CAC now performs "was just really boring work," Johnston says. "We initially thought we could supplement our staffing by using the computer-assisted coding to code the boring stuff, then we could have our coders work on the more complex stuff."

That happened, but there was an added benefit, Johnston said. Once coders were trained on the new CAC workflow, their productivity increased. CAC didn't lead to any reductions in staff, instead it filled the perpetual staffing holes.

The technology makes life easier for a coder, Hilerio says. "I think this is really going to help coders, period," she says.

CAC is good for the industry, agrees DeGrosky, because it saves the grunt work for the machine and enables coding professionals to turn their skills to more complex coding cases. "Assigning the same code to 100 charts over and over—who wants to do that?" she asks. "For a lot of people, this is going to provide them with an opportunity to shine."

Shasha Graham, CPC, was skeptical at first when her facility implemented CAC. In fact, coders at Shands at the University of Florida feared the worst when it was announced that the radiology department was implementing CAC in July 2005.

"One of the first things that went through our heads when our manager told us we were going to implement [CAC] was, 'Oh my god, we are going to lose our jobs,'" Graham says. "'They are going to put in this machine that will do our coding—what are we going to do?'"

Graham says she soon realized that CAC would improve her job and enable her to better use her coding knowledge.

"A lot of coders are afraid that by getting CAC their job is in jeopardy," she says. "But by having CAC, our jobs aren't going anywhere. We still have as many coders now as we did when we started this two years ago."

That's not the larger plan, however. Managers at Shands told Graham and her fellow coders up front that part of the program's goal is to eventually reduce the number of coders on staff.

That reduction "is not now, and it is not tomorrow," Graham says. She believes the cuts will come eventually, but thinks it could be five or seven years before they do. "There is no timeframe," she says.

After initial training to learn how to work with the CAC system, Graham required no additional training to do her new job. Everything she learned through her coding certification still applied, she says.

## Transitioning to New Roles

A lot of Graham's time is spent approving codes that the program assigns. Because approving codes for standard cases takes less time than manually assigning them, she has more time to devote to other aspects of her job as a quality assurance coder, including handling rejections and educating physicians on proper documentation.

When CAC was first implemented, Graham spent a lot of time helping train the program on proper procedures. Taking part in this process demonstrated the need for human expertise in coding, she says. She uses an example of coding a complete versus a limited ultrasound of the abdomen. The program may "code it out as complete, and you read in the notes that all eight of the components are not coded, then you change it."

Once the program is adequately trained and reliable enough to code cases, Graham still needs to approve the assigned codes. Coding programs will never stop learning and will never stop needing humans to help train them, Johnston says. Reviewing the output is an essential part of the technology.

At Shands, Graham says CAC advanced the coder roles by allowing coders to work on different coding queues according to their expertise. When CAC was first implemented, the only thing that came through the program were plain films, which the entire coding team shared at the time. But as more and more was put through the program, like "fluros and ultrasound and mammos and CT and nuclear meds," coding professionals started to handle reviews differently, she says.

"Some people stayed on the plain films, and then the more established coders were moved up to the harder areas," Graham says. "You could learn the area and find your specialty." This made for a more mentally challenging and, in turn, rewarding work atmosphere, she says.

CAC also helps eliminate the strain of perpetually backlogged cases and aids coders in catching inconsistencies and inaccuracies, she says. Being able to do better work each day led to more job satisfaction. "If anything, [CAC] helps. You have more time to do other things," Graham says. "You are coding it out, seeing everything, and that is something to be proud of in a way."

The implementation of CAC at Mass General, along with a workflow redesign, allowed coders to move from the hospital's backroom to their homes and telework. "The coders had improved satisfaction and morale," Johnston says. "They in turn became integrated with the department, became the experts in the department, and became involved in developing their protocols. So really a much more expanded role for the coder."

Kristie Thibault, CPC, says CAC had a positive effect on her job. Now the leader of the ancillary coding team at Mass General, Thibault was present when CAC was implemented for plain x-rays and mammography in 2001. No one was sure what was going to happen, and some feared for their jobs. But fears were put to rest when they saw how it would improve their work.

"I was ecstatic, because we had an old system that was very un-user friendly," Thibault says. It took time for the program to get up to speed. Once implemented, any reservations she held diminished when she saw the need for human interaction.

"It was not even two weeks into the program and [the coding staff] knew we had very good job security," she says. They saw that the new technology was not going to "take over." Radiology coders were able to move up to more advanced cases, like neurosurgery and vascular surgery, and had more time to query physicians.

Not everyone wants those "higher" coding roles, of course. For some, the opportunity to expand their role isn't a big enough draw to embrace change. Still, even those stubborn in their ways are not at risk of CAC taking their job just yet.

But change is a part of life, DeGrosky says, evident by the file clerks who lost their jobs after hospitals adopted paperless medical records. In order to avoid becoming outdated, coders must pay attention to the times and stay at the forefront of the profession, she recommends.

## Help Needed: Human

CAC at Shands leaves plenty of work for coders, Graham says. After all, the program can't run and find additional information. "It can only go off the information that it found on that particular reading," Graham says. "So you still have a lot of research to do as far as getting the procedures coded correctly and paid for."

Healthcare organizations should not purchase a CAC product and expect it to replace coders. Vendors are usually careful not to promise such a thing, DeGrosky says.

No matter how advanced CAC becomes, healthcare facilities will still require skilled coders to implement, train, monitor, and audit computer-generated codes, according to Johnston. "Until the day comes that our nation's healthcare system changes such that detailed health information becomes unnecessary, we are always going to need this process," she says. "Without humans, there is really no way to ensure that accurate coding information is being assigned, whether it is assigned by a human or by the computer."

"The computer can only do so much," DeGrosky agrees. "These coders are still going to be needed, they are just going to be in a different role, an advisory role to the computer."

Though the coding profession will remain essential, that doesn't mean coders shouldn't emphasize their worth when CAC is implemented at their facility. Coders need to work through the implementation process and "lay claim to their turf," DeGrosky says. "Say, 'Here is where I know I'm the expert.'"

The most important thing when it comes to any change is that HIM managers provide adequate information to their coding staff about the future. "How will this change my job?" is a big question that needs to be addressed from the beginning, Graham says. "New things are scary. It was intimidating at first, but once we started doing it we were like, 'Wow, this is pretty cool.'"

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