

# Leveraging CAC to Prepare for ICD-10-CM/PCS

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By Karen Scott, MEd, RHIA, CCS-P, CPC

As the healthcare industry prepares for the transition to ICD-10-CM/PCS, many tools have been developed to assist in mitigating anticipated coding productivity losses. Computer-assisted coding (CAC) is an important tool that healthcare organizations can leverage to help counteract projected productivity losses.

The term “CAC” has been used to describe various types of technology in today’s market, which can make it challenging when comparing various systems and functionalities in selecting a tool that best meets the facility’s needs. When reviewing CAC tools, it is important to compare the various features carefully. Changes in the workflow should be evaluated to determine how the tool will be integrated into the normal coding process.

## What CAC Should Do

CAC software may be used to aid the physician in selecting the correct code with processes such as drop down boxes or touch screen terminals. Another form of CAC is natural language processing (NLP), an artificial intelligence software program. In an NLP environment, digital text from online documents stored in the organization’s information system is read directly by the software and then suggests codes to match the documentation. For example, the digital text in an online health record is interpreted automatically by the CAC system and appropriate codes are suggested. The coding professional then reviews and verifies the suggested codes. The coding professional is trained to search for additional clues in the record that might necessitate sending a query to the physician to request further information. This process can assist in justifying additional diagnoses or procedures that are not adequately documented in the chart. Upon verification, the codes are released into the billing system.

Although it is possible for a CAC system to accurately select codes based on chart documentation, this technology is best utilized in conjunction with oversight by a credentialed coding professional who can review, edit, and make changes as necessary to ensure coding compliance. While the motivations and goals associated with CAC are clear, there are significant challenges in the hospital setting. CAC developers must demonstrate the effectiveness of their solutions for hospital inpatient and outpatient services while working with HIM professionals to serve up three important deliverables:

- Incorporate CAC into an integrated workflow process that collects data from disparate source systems and gives the hospital coder a combined view of natural language processing text and scanned handwritten documents.
- Efficiently allow the hospital coder to interact with the information to accurately complete the coding. Flow this information downstream into the encoding and abstracting process so that a final bill is proficiently produced.
- Support the post-coding process with thorough attribution of all selected codes in each case, to ensure that the HIM staff can comply with audit requirements using a pre-existing set of structured reports.<sup>1</sup>

Currently, most CAC tools can only read electronically generated documentation. This would include transcribed reports, such as the discharge summary, radiology reports, and history and physical as well as computer-generated reports such as laboratory and ancillary records. Handwritten or scanned documentation cannot typically be “read” by the CAC products. However, several vendors are working on optical character recognition technology that may make this available in the future. If a facility still uses a hybrid record-or codes from orders that are not electronically generated-the coding professional will have to review these documents to be sure that all appropriate diagnoses and procedures have been captured. The tools are usually very accurate when used in areas where the numbers of procedures and the terminology is extremely limited with a high volume of electronically generated documents, such as outpatient radiology.

## Encoders and CAC

As healthcare facilities discuss their computer-assisted coding needs, one area that must be addressed is the use of an encoder with the CAC tool. Some encoder vendors have formed partnerships with CAC companies to allow for the streamlining of interfaces or to even embed components within the CAC tool. This level of compatibility allows more productivity as the coding professional is not required to toggle between two systems to complete work. In such a CAC workflow, there is no need for a standalone encoder. Coders will work directly from the CAC tool and utilize an integrated encoder application strictly as a “validation tool” to ensure accuracy of the codes assigned by the CAC tool.

## Mitigating Productivity Losses

One of the biggest concerns for providers with the transition to ICD-10-CM/PCS is decreased productivity. As coding is tied to reimbursement in virtually all types of healthcare facilities, there is much concern and fear that the level of productivity will drop greatly and affect the financial health of the facility. If coders are working at a decreased level of productivity because they are unfamiliar with the new coding system, billing will be delayed, which will have a financial impact on the facility. Based on studies by some Canadian hospitals that already made the transition to ICD-10, the change created a productivity decrease up to 50 percent.<sup>2</sup>

According to AHIMA’s CAC 2010-11 Industry Outlook and Resources Report, “studies have shown that CAC has increased coder productivity in Canada by as much as 20 percent, while decreasing coder overtime by as much as 80 percent and decreasing external audit fees as much as 50 percent.” Many vendors are promoting products that will bridge the gap of productivity with CAC tools, leading to an increase in productivity of 30 to 50 percent.

CAC productivity studies indicate that it could take from six months to a year for solid productivity increases to take effect following CAC implementation. Implementing a CAC tool now will provide the users adequate time for training and to adjust to the differences of the CAC product from the original processes in place. Any issues can then be worked out in plenty of time to give the coders the comfort level needed to use the tool successfully before ICD-10-CM/PCS is implemented. Coders may choose to utilize the CAC tool only in certain areas where it can be utilized to its fullest potential, such as for routine ancillary tests or outpatient surgery cases.

## New Codes Coming Soon

The ICD-10-CM/PCS implementation deadline of October 1, 2014 will be here quicker than many providers may realize, and coding resources and vendors will be in high demand as providers across the entire country prepare for the new code system. If organizations plan to use CAC to combat ICD-10-CM/PCS productivity losses, it is imperative to implement CAC within the next six to 12 months to allow staff adequate opportunity to adjust to using the CAC tool in their workflow.

## Notes

1. Morsch, Mark, Rebecca Kaul, and Scott Briercheck. “[Hospital Based Computer Assisted Coding—A New Paradigm](#).” 2008 AHIMA Convention Proceedings, October 2008.
2. Johnson, Kerry. “[Implementation of ICD-10: Experiences and Lessons Learned from a Canadian Hospital](#).” 2004 IFHRO Congress & AHIMA Convention Proceedings, October 2004.

## References

AHIMA. “[CAC 2010–11 Industry Outlook and Resources Report](#).” 2011.

Sayles, Nanette B. *Health Information Management Technology: An Applied Approach, Fourth Edition*. Chicago, IL: AHIMA Press, 2013, 217-218.

Zeisset, Ann. “[ICD-10-CM Enhancements: A Look at the Features That Will Improve Coding Accuracy](#).” *Journal of AHIMA* 80, no.2 (February 2009): 55-58.

Karen S. Scott ([kscottseminars@comcast.net](mailto:kscottseminars@comcast.net)) is owner at Karen Scott Seminars and Consulting.

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