

# Evaluating Computer Assisted Coding Systems & ICD-10 Readiness



## Article

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Computer Assisted Coding (CAC) can reference a wide array of coding tools depending on what the end user needs to accomplish from a workflow perspective. Some may reference encoders, groupers, automated super bills and hard coded chargemaster tables as CAC devices. For purposes of this article, the technology discussed around CAC focus is in the ambulatory and hospital setting with the primary focus of outpatient surgery.

This discussion will reference computerized tools available to automate the assignment of certain medical or surgical codes (ICD-9-CM and CPT/HCPCS) from clinical documentation that are traditionally assigned by coding or HIM professionals as well as clinical providers. As you evaluate these tools for your organization or if you currently utilize CAC tools within your organization, please begin to think about CAC vendor readiness with ICD-10.

CAC automates complex coding, provides the coder the ability to analyze data, allows for productivity and ensures compliance at the end of the day; taking the place of manual coding processes which are inherent to being quite expensive and inefficient. CAC software should provide the end user the ability to review and validate coding output so that reporting requirements, such as Correct Coding Initiatives, payer specific policies and coding rules are addressed prior to code acceptance and bill drop.

With the onset of Prospective Payment across multiple payment systems and the upcoming change from ICD-9 to ICD-10, there is an overarching influence that "coding and documentation will drive reimbursement" to where accuracy in coding and documentation becomes inevitable.

### Assess ICD-10 CAC vendor readiness with these questions:

- What is the schedule and cost associated with providing ICD-10 code sets?
- What is the impact of the new code set on my current system, the end user workflow, and interfaces?
- What training is involved and will the vendor provide the training?
- Will the vendor provide tools to assist coding professionals understand the code set transition from ICD-9 to ICD-10?
- How long will the vendor support the ICD-9 code set post transition to ICD-10?

### Natural Language Processing (NLP) & Structured Input

There are two methods and coding workflow differentiations for Computer Assisted Coding: Natural Language Processing (NLP) and Structured Input

I. **NLP** is a software technology that uses artificial intelligence to extract pertinent data and terms from a text-based document and convert them into a set of medical or surgical codes to be used or edited by a professional coder. NLP is also known as computational linguistics, in which the study of linguistics, semantics, and computer science is used to abstract information from free text. From a coding workflow perspective, an electronic document is sent to an NLP coding engine, the engine reads the document and selects potentially applicable codes and then goes to coding/HIM for validation.

II. **Structured input**, also known as codified input, is based upon the use of menus that contain clinical terms. As an individual menu item is chosen, a narrative text phrase is produced and becomes part of the health record documentation. Each menu item that affects coding is directly mapped to its relevant code. Structured input is differentiated from a pick list because it does not require human intervention to select the code. From a coding workflow perspective a note is generated using pre-defined structured documentation. The coding

engine assigns the codes associated with the selected documentation and applies coding edits. The codes are presented to the physician for confirmation and then to coding/HIM for validation. Advantages of structured input include reduction in the cost of medical transcription and improvement in documentation.

No matter what method is chosen, CAC is typically chosen as the best practice to decrease manual intervention. One common myth that needs addressed is that CAC replaces coders. CAC does not replace coders! Coders are required to validate and accept recommended code sets based on physician documentation. A common missing component to many CAC devices is the absence of a research portal. Research portals paired with CAC devices become a one stop shop for coders; providing coders with the documentation to support their decisions in code selection. Pairing CAC with research tools allows for coder productivity, an increase in efficiency and accuracy as there is no more repetitive code assignment. When research portals integrate with CAC devices, coders can concentrate on critical thinking skills such as interpretation and analysis of documentation or aggregate data to prevent code scrutiny and stay in compliance with regulatory changes.

As you think about your current and future CAC business needs, specifically the transition to ICD-10 don't make the mistake that

many have made in the past and "incorporate technology into their current environment without making any changes". Do yourself a favor and visualize transforming your day-to-day processes to increase your workflow productivity and generate accurate code sets. With CAC workflow automation, there is real-time procedure documentation and coding compliance.

Some questions to ask your CAC vendors to assess ICD-10 readiness should include:

- What is the schedule and cost associated with providing ICD-10 code sets?
- What is the impact of the new code set on my current system, the end user workflow, and interfaces?
- What training is involved and will the vendor provide the training?
- Will the vendor provide tools to assist coding professionals understand the code set transition from ICD-9 to ICD-10?
- How long will the vendor support the ICD-9 code set post transition to ICD-10?

By choosing a CAC tool that integrates regulatory and reimbursement information, in addition to assisting you with the transition to ICD-10, is a win-win for your organization. Just be sure to choose a vendor who will deliver ICD-10 code sets months ahead of the transition date, minimizing the training burdens on physicians and coders, and ensuring documentation accuracy after the transition to ICD-10.

## About the Author

Maria joined Wolters Kluwer in the fall of 2007 and is currently the Product Manager for Regulatory and Reimbursement software solutions. She is responsible for product development, maintenance and enhancements and business development. She has twenty years of experience in health care including nursing, coding, and health care consulting.

Specializing in regulatory compliance, reimbursement, and process improvement, she has led improvement projects that have delivered significant financial benefit for large academic medical centers as well as mid-sized community hospitals and critical access hospitals.

Prior to joining Wolters Kluwer, Maria was a Senior Manager with GE Healthcare and led large revenue cycle projects, developed service line offerings and mentored consultants. Prior to GE, Maria was Vice-President Operations for a national management-consulting firm, specializing in reimbursement, operational improvement, and regulatory issues. The firm provided on-site consulting services as well as web-based applications to help hospitals review and maintain their charge description master (CDM), outsource CDM management, perform outpatient and inpatient coding compliance reviews, and assist in answering corporate integrity agreements. In this role, Maria was responsible for developing and maintaining the operating budget, developing and implementing the training program for new employees, sales and implementation of web-based applications, and being the client executive for on site engagements, as well as, providing consulting services to clients.

Maria has a Masters Degree in Public Management with Concentration in Health

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