# Tips for Getting the Most Out of Computer-Assisted Coding



By Daniel Land, RHIA, CCS

Marshall McLuhan, the Canadian philosopher who predicted the World Wide Web nearly 30 years before its invention, said that "we shape our tools and thereafter our tools shape us."[1] It is important to keep this in mind in any discussion of computer-assisted coding (CAC), since this ever-evolving tool is not completely self-sustaining or self-operating.

CAC was not designed to make truly meaningful decisions about the context of the health record and does not replace the need for human logic and intelligent decision-making. Rather, coding professionals—the ultimate drivers of codes reported—are responsible for applying official coding guidance, following coding conventions, ensuring compliance with regulations, and utilizing common sense while reviewing CAC's auto-suggested codes.

A partnership exists between coding professionals and CAC in that optimal usage of the technology allows CAC to learn and improve over time. In turn, coding professionals can benefit from CAC's mapping logic. For example, CAC may suggest the correct ICD-10-PCS code for a procedure that would otherwise pose an indexing challenge. The process of validating auto-suggested codes helps to continually refine coding professionals' knowledge and critical thinking skills. This article shares tips from coding experts on how to best interact with CAC in order to improve coding efficiency and accuracy while helping to build a better product for the future.

## A Brief Overview of CAC

CAC is a software tool designed to assist with documentation and code assignment by reviewing the patient record and suggesting codes. While these suggested codes are automatically generated, they require validation from a human coding professional based on the documentation. The process of validation allows the coding professional to identify inconsistencies or gaps in documentation related to the totality of the patient record.

CAC can be structured via natural language processing (NLP) or structured input. NLP uses artificial intelligence to identify terms in a text-based document and converts them into medical codes. Structured input is based on menu items chosen via a template that is then blended into the medical record. The provider selects a diagnosis from the menu and then it is translated into code by the software.

CAC was designed to increase coding efficiency, productivity, and consistency for healthcare organizations. Although CAC software has greatly improved over the past few years, it is still far from being perfected and has the potential to increase coding errors and claims denials if not built and used properly. For example, accepting CAC-generated codes without careful validation could lead to erroneously reported MCCs and CCs and incorrectly assigned DRGs.

## CAC Tips

Awareness of the following tips can help coding professionals use CAC to their advantage while ensuring revenue integrity and data quality:

- Providers often use different verbiage to describe the same diagnosis or procedure that may not always match the CAC's NLP mapping. This can result in incorrect auto-suggested diagnosis and procedure codes. Careful validation of auto-suggested codes is necessary to prevent incorrect code assignment.
- NLP will identify every instance of a word in the set parameters of a search. For example, the term "diabetes" can yield an auto-suggested code for diabetes type II, uncomplicated—despite the fact that the patient may have documented complications such as chronic kidney disease (CKD) or neuropathy. All non-applicable/redundant auto-suggested codes must be edited or deleted.

- CAC is unable to identify documentation inconsistencies in a patient's record and may erroneously auto-suggest codes for items that further require clarification for the purposes of clinical truth and revenue integrity. For example, CAC may auto-suggest a code for a historically acute condition that is now resolved and no longer pertinent to the current encounter.
- Attention to detail will prevent application of incorrect codes due to mapping inconsistencies. For example, a CAC product was known to apply the code for novel influenza A to influenza A. Close review of codes assigned while using the patient record as a whole is suggested.
- Pay close attention to the validity of CAC-generated codes. CAC may suggest codes that are based on words within X-ray and lab reports which cannot be coded without provider corroboration on inpatient cases.
- Ensure auto-suggested codes that are based on cloned documentation are relevant and reportable. A cloned progress note may document "pneumonia," but further examination determined that this condition occurred on a previous admission, is now resolved, and should not be reported as an acute condition for this encounter.
- Remember that coded data has a long and influential life span, and its importance goes beyond today's reimbursement. Not only is correct coding essential to a healthy revenue cycle, it is key to healthcare initiatives such as quality outcomes, risk adjustment, predictive analytics, population health, medical research, institutional longevity, and provider/hospital ratings. Codes follow patients for a long time, so correct use of CAC is essential.
- Refer back to CAC training materials periodically to ensure understanding of the nuances and mechanics of the product. Consult with a trusted colleague, manager, or CAC vendor when in doubt about how to use the product optimally. For example, coding professionals can confuse the methods of accepting and declining codes. By referring back to the CAC training materials this problem can be resolved quickly.

## CAC Doesn't Replace, But Assists

People should always keep in mind that CAC is there to assist—not replace—the coding professional and that CAC and any coding is only as good as the documentation on which it is based. Coders who work with CAC are afforded the opportunity to hone their critical thinking skills by the process of validating (auditing) CAC-suggested coding data.

As with traditional coding, the full patient record must be read in order to contextualize the CAC-identified verbiage. It is incumbent upon the coding professional to never blindly accept CAC's suggestions, but—rather—validate them. CAC is an ever-evolving tool that is also fallible. The degree of effective human interaction with CAC varies directly with the quality of the final coded product. Ideally, all CAC-generated codes should be validated for accuracy. Some HIM professionals report that the thought processes required to work with CAC have inspired them to career-bridge into auditing.

## Note

1. Levinson, Paul. *Digital McLuhan: A Guide to the Information Millennium.* New York, NY: Routledge, 1999.

## Reference

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