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Autonomous Medical Coding: Separating Fact From Fiction

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E-BOOK

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True or False

1. Autonomous medical coding is simply an improved CAC
2. Autonomous medical coding will take away work from medical coders
3. Autonomous medical coding solutions are difficult to implement and use
4. Autonomous medical coding provides revenue uplift across all medical specialties
5. Autonomous medical coding reduces costs and A/R days

Introduction

Medical coding is vital to managing patient care, ensuring billing accuracy and securing fair reimbursement for services rendered. Traditional coding practices are manual and inefficient—resulting in longer A/R days, billing discrepancies, challenges with denials management, and more—pressuring healthcare leaders to elevate their approach to coding.

Fortunately, coding technologies have been evolving. Recent breakthroughs in GenAI have led to the rise of autonomous medical coding solutions—a powerful tool to address the inefficiencies of manual processes.

Autonomous medical coding solutions improve coding accuracy, accelerate reimbursement cycles, and streamline revenue cycle management. It isn't surprising then that by 2025, 65% of large healthcare systems are projected to adopt autonomous coding technology. The criticality of this investment is on the minds of healthcare revenue leaders as they wade through the noise and conflicting information surrounding this promising new technology.

In this e-book, we address the common questions and misconceptions about autonomous medical coding.

1 Autonomous medical coding is simply an improved CAC: False

Healthcare systems bogged down by inefficient manual coding practices widely adopted computer-assisted coding (CAC) in the early 2000s. Using natural language processing (NLP) and machine learning, CAC assists medical coders by suggesting appropriate codes for patient charts.

Although an improvement over manual coding, CAC has many limitations including:

- *Limited ability to interpret documentation:* CAC can't interpret unstructured, free flowing clinical text. It also cannot flag or assist in improving documentation.
- *Black box format:* Suggested codes come without any explanation creating a challenge for coders. It also complicates denial management, auditing and compliance.
- *Manual workload remains:* CAC only suggests codes—coders must accept, reject or modify the codes, plus add any missing codes identified in their review. The coding process thus remains largely manual leaving backlogs unresolved.

Essentially, CAC relies on predefined structures and human intervention. It cannot ensure coding accuracy or help tackle the chart backlog.

Autonomous medical coding solutions go well beyond merely suggesting codes, independently coding the vast majority of charts with high accuracy.

Unlike CAC, autonomous medical coding solutions:

- *Interpret all relevant documentation:* Using the latest advances in deep learning and large language models (LLMs), autonomous coding solutions effectively parse and interpret all clinical data—both structured and unstructured text—and convert it to standardized diagnoses and codes with very high accuracy. These solutions can also identify documentation gaps, helping improve the quality of clinical documentation.
- *Are explainable:* Every code comes with a clear explanation, making it easy to verify accuracy, and simplifying audit and compliance activities.
- *Automate coding:* A majority of the charts are coded and sent to billing with no human intervention. This significantly reduces coder workload, even as chart volumes grow.

By ensuring coding accuracy, reducing chart backlog and enabling coder productivity, autonomous medical coding solutions improve revenue, efficiency and compliance for healthcare systems.

2 Autonomous medical coding will take away work from medical coders: False

Healthcare systems typically experience a significant backlog in coding and delays in billing driven by multiple factors including growing chart volumes, updates to coding protocols, inefficient processes and coder shortages. In fact, healthcare leaders **report** that among all the revenue cycle roles, medical coders are the most difficult to hire.

Whatever the cause of the backlogs, the reality is that there are simply *more charts than coders can handle*. In ambulatory care, for instance, coders on the average are able to touch only 30% of charts. Also, while healthcare systems typically aim to keep A/R below 40 days, for many, a large percentage of their A/R exceeds 90 days.

Autonomous medical coding enables coding teams to *better manage chart volumes* by automatically coding a majority of the charts. Rather than eliminating work for medical coders, autonomous coding eliminates repetitive tasks like adding code modifiers. This streamlines coding and greatly reduces coding backlogs.

Automating the repetitive coding also *empowers coders* to work at the top of their skill level and focus on areas where they can bring maximum value, such as complex coding requirements, denials management, and revenue integrity projects. These new efficiencies also gives coders time to upskill, benefiting both the healthcare system and the coders.

Autonomous medical coding frees coders from repetitive, low value coding tasks, giving them time to focus on value added projects and professional development.

3 Autonomous medical coding solutions are difficult to implement and use: Depends

Leading autonomous medical coding solutions are integrated with popular EHR systems like Epic and Athena. However, the *type of integration varies*. The integration determines how easily IT team can implement the solution, and how well the revenue cycle team can tune to meet their requirements.

Solutions can be natively integrated with the EHR or use a third-party for integration. Native integration offers multiple benefits that third-party integrations can't provide.

Native integration:

- *Maintains all data and workflows within the EHR:* Native integration ensures data integrity, and delivers all coding outputs within the EHR using existing formats and workflows. Additionally, it supports embedding chart-specific queries within the EHR, eliminating the need for separate datasheets. Third-party integrations with nightly batch processing via SFTP or non-native file formats have significant limitations, including data integrity challenges and the potential for data loss.
- *Simplifies audits and reviews:* With native integration, coding decisions include inline explanations with intuitive pathways to access patient charts. This allows for rapid verification and audits without leaving the workflow. In contrast, vendors using third-party integrations can't provide code explanations and provenance inline.
- *Supports complex workflows:* A natively integrated solution provides the flexibility to incorporate an organization's existing business rules and easily make changes as requirements evolve. It can easily support complex workflows such as coding multiple appointments for the same patient on the same day, managing locum tenen modifiers, and meeting multiple payor-specific requirements.
- *Minimizes operational overhead:* With native integration, implementation is easy with minimal IT lift. It also simplifies future updates and expansion to new specialties.

The type of integration with the EHR impacts how easily IT can implement the solution, and how well the revenue cycle team can customize it to their needs.

4 Autonomous medical coding provides revenue uplift across all medical specialties: True, but the impact varies by specialty

Autonomous medical coding solutions use advanced AI technology to professionally code charts with a high degree of accuracy. This streamlines revenue cycle management and accelerates revenue recognition. However, *the amount of revenue uplift varies across medical specialties.*

The revenue uplift is most pronounced in complex specialties with high-volume, low-dollar value charts. For instance, ambulatory care generates a high volume of charts which are complex to code, but the dollar value per chart is low. With manual coding practices, at any given time, a large percentage of these charts aren't worked on by a professional coder, leaving potential revenues on the table.

Therefore, complex high volume - low dollar value per chart specialties such as ambulatory care can realize a significant revenue uplift with an autonomous medical coding solution.

In simpler specialties that use well-defined ICD codes like radiology and pathology, autonomous medical coding increases the speed of coding and reduces the need for specialized coders, delivering efficiency and productivity gains.

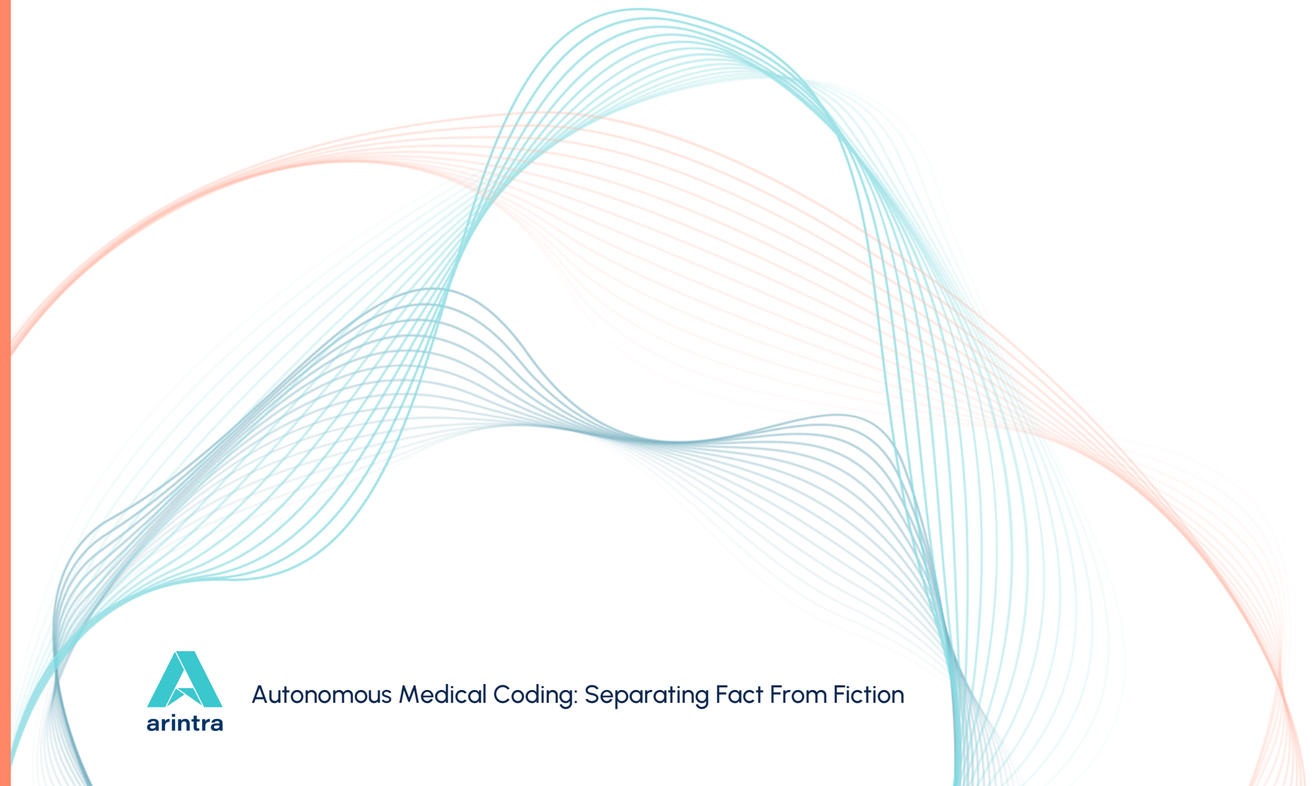
High volume, low dollar value per chart specialties like ambulatory care see the highest percentage uplift in revenue .

5 Autonomous medical coding reduces costs and A/R days: True

Manual coding processes can take anywhere from one day to multiple weeks, depending on the availability of coders, volume of charts, and complexity of cases.

Autonomous medical coding platforms can code a large majority of charts accurately in hours and scale to support growing chart volumes. This efficiency and accuracy in coding results in quicker claim submission, lower A/R days, and lower denial rates, ultimately reducing costs.

However, the magnitude of cost and A/R days reduction can vary based on capabilities across vendor solutions. The complexity of, and vendor support for the implementation determines how quickly the solution goes live, impacting time to value. Other factors impacting cost savings include availability of data for audits or to respond to denials, ease of implementing business-specific rules, and ensuring updates to adhere to changes in coding protocols. But even with these variations, healthcare providers will no doubt reduce their costs and capture revenue more accurately by adopting an autonomous medical coding platform.



Autonomous medical coding streamlines claim submission reducing A/R days and costs, though the impact varies by vendor capabilities.

Conclusion

Healthcare systems are facing unprecedented challenges, from surging patient volumes to intense labor shortages, including in medical coding. These issues are overwhelming healthcare systems, impacting the patient experience, decreasing productivity, and slowing down revenue recognition.

Fortunately, AI-driven autonomous medical coding solutions can automate medical coding, presenting a promising path to reducing costs, increasing revenues and speeding reimbursements. But like any technology platform, not all solutions are created equal, so a deep investigation into alternative solution's capabilities is critical for any healthcare system looking to gain from its potential benefits.