CAQH CORE℠

ISSUE BRIEF

Streamlining CPT II Billing through Automation: Unveiling Efficiencies

Introduction: Automating Emerging Business Needs Related to Value Based Contracts

Submitting Quality Data Codes (QDCs) on health care claims, including specified CPT Category II (CPT II) codes is central to the administration of value-based payment (VBP). VBP models are used to pilot payment reform methodologies meant to deliver better care at a lower cost. CPT II codes are commonly used by providers to document care outcomes, utilization of care and adherence to standards of care or other best practices. **Inclusion of these codes on a claim can involve time-consuming and expensive manual processes that add administrative burden to the provider workflow.** To help reduce burden, improve the data capture, and ensure that practices earn contracted financial incentives, athenahealth[1] created an automated platform that identifies, records, and includes CPT II codes on claims.[2,3]

CORE partnered with athenahealth to evaluate use of their CPT II Automation Tool, and to understand how automation impacts the resources allocated quality data coding activities. The findings reinforce the importance of automation to transform workflows to minimize burdensome tasks.

athenahealth CPT II Automation Tool

athenahealth's CPT II Automation Tool seamlessly integrates into the athenaOne platform and guides users through the steps to include a CPT II code on a claim. The tool simplifies process into four primary tasks:

1. **Determination:** Identifying what CPT II code(s) are relevant to a provider-health plan contract.

2. **Recording:** Entering the applicable CPT II code(s) and relevant diagnosis codes.

3. **Review:** Evaluating demographics and clinical documentation to determine validity.

4. **Submission:** Ensuring that the recorded CPT II code(s) are sent to the health plan.

Automating these steps promotes greater use and accuracy of CPT II codes and drives efficiency by allowing practices to optimize the resources allocated to CPT II coding.

When implementing, the tool participants are given the option to fully automate the CPT II process or use a "partially automated" approach that allows users to maintain manual oversight of select codes and processes related to the value-based contract. This encourages participation in value-based contracts from those who prefer full automation and from those who desire greater control over the process.

Study Design

CORE and athenahealth postulated that use of the CPT II Automation Tool, in comparison to a manual approach, would result in cost and time savings, more accurate collection and inclusion of CPT II codes on claims, and quicker, more complete capture of incentive payments.

Survey: CORE and athenahealth collaborated on the design of an eight-question survey focused on staff resources needed to complete the four CPT II coding tasks during pre- and post-implementation. The survey additionally asked questions about practices' participation in value-based contracts and their satisfaction with the tool.

Key Metrics: The information gathered via the survey was paired with internal athenahealth data to provide a rich understanding of user experience

and the tool's impact on operations, illustrated using the metrics below.

- Duration of implementation in days.

- Number of VBP Incentive/Quality Contracts supported by the tool.

- The cumulative dollars-at-risk of VBP Incentive/ Quality Contracts.

- Full-time Equivalents (FTE) assigned to CPT II coding pre and post implementation.[4]

- Allocation of FTE time to the four CPT II coding tasks pre and post implementation.

- Estimated salaries of staff supporting CPT II coding.

- Satisfaction with CPT II Automation Tool Features.

These metrics were stratified by duration of implementation and level of automation (full or partial).

Data Collection and Response Rate: A multi-pronged approach was used to gather data from respondents.

- **E-mail:** The survey was e-mailed to 1016 current users of the CPT II Automation Tool.

- **Direct Access:** The survey was linked in a secure athenahealth customer-facing website.

- **Client Engagement:** Client Relationship Managers (CRM) at athenahealth engaged directly with customers via phone and e-mail to solicit responses.

The survey remained open for one month and received 59 responses. Thirteen responses were excluded due to duplication, incomplete or invalid data, resulting in a total of 46 responses – a 4.5% response rate.

Table 1. Survey response breakdown by size and practice type.

Practice Size	Primary Care	Specialty
Small (1 – 4 providers)	24	7
Group (5 – 50 providers)	9	4
Enterprise (> 50 providers)	0	2

Key Findings

Penetration and Magnitude of VBP Contracts

To demonstrate the relative value of capturing CPT II codes, the survey asked respondents to indicate the number of VBP contracts supported at their practice and the total financial worth of these contracts. Most (80%) respondents indicated that their practice supported multiple quality contracts - the most frequent number of contracts was five.

The financial incentives tied to performance on these contracts varied, ranging from $30,000 to $3,000,000. Primary care practices reported maximum at-risk dollars of $600,000, while specialty practices reported between $2,000,000 and $3,000,000. Though more formalized investigation is necessary, higher at-risk amounts may be driven by the greater patient acuity encountered in specialized care.

Monitoring the associated VBP contracts provides a basis for the importance of quality data coding, in general, and specific to the capture of CPT II codes.

Impact of CPT II Automation on Resourcing

The time allocated to CPT II coding indicates the level of effort associated with conducting specific tasks. On average, practices devoted 3 FTEs to quality data coding, which equates to an annual salary between $120,000 and $210,000 based on estimates provided by the respondents.

Though the average number of FTEs remained stable between the pre- and post-implementation period across respondents, slight variation exists across practice sizes and specialties. Group and Enterprise specialty practices experienced large increases and decreases in the average number of FTEs, respectively (**Table 2**).

Further research is needed to understand the variation, but it could suggest that the CPT II Automation Tool allowed for greater specialty engagement with value-based contracts, leading to optimized resources.

Table 2. Change in FTEs by practice size and specialty.

Practice Size	Primary Care	Specialty
Small (1 – 4 providers)	+ .50 FTE	- .17 FTE
Group (5 – 50 providers)	- .30 FTE	+ 2.33 FTE
Enterprise (> 50 providers)	N/A	- 3 FTE

Overall, implementation of the CPT II Automation Tool did not appear to affect the number of staff or salary devoted to supporting CPT II coding activities. This implies that regardless of the level of automation achieved in quality coding, some human intervention is necessary to address the nuance and complexity of quality contracts.

Shift of FTE Time Allocation

Though, overall, the number of FTEs performing CPT II coding tasks remained stable at three, there is evidence that the CPT II Automation Tool shifted how time was allocated to coding tasks. Between the pre- and post-implementation periods, FTEs reallocated their time from traditionally burdensome tasks - such as determination and recording – to less burdensome activities such as reviewing and submitting a claim (**Table 3**). These findings were largely consistent with the modest changes in the number of FTEs devoted to CPT II Coding (**Table 2**).

Table 3. Changes in FTE Time Allocation by Task and Practice size and Specialty.

Practice Size	Primary Care				Specialty			
	Determ.	Review	Record	Submit	Determ.	Review	Record	Submit
Small (1 – 4 providers)	-24%	+24%	-14%	+31%	-12%	+13%	-9%	+13%
Group (5 – 50 providers)	-24%	-18%	-15%	+86%	+15%	+75%	+11%	-47%
Enterprise (> 50 providers)	N/A	N/A	N/A	N/A	-30%	+90%	-30%	-30%

These findings suggest that use of the CPT II Automation Tool may benefit practices by steering day-to-day activities away from the most burdensome tasks – such as determination – to less intensive tasks. This can have the beneficial effects of reducing burnout and ensuring more time can be devoted to patient care and wellbeing.

Effect of Longer Implementation Periods and Full Automation

Implementation dates were provided by athenahealth for select respondents (n=26), allowing the team to investigate whether there was a relationship between duration of implementation and efficiencies. Overall, those implementing the tool more than a year had approximately the same number of FTEs assigned to CPT II coding tasks as practices implementing the tool less than a year.

Efficiencies were observed, however, when investigating the interaction between duration of implementation and use of the fully automated CPT II billing workflow that is empowered by the tool.[5] Practices with more than a year of implementation who fully automated the CPT II coding workflow experienced reductions in the time FTEs spent conducting CPT II coding tasks, specifically those that are more burdensome such as determination (**Table 4**). Though automation also benefitted those with less than a year of implementation, the effect was not as uniform.

Table 4. Change in FTEs per task by implementation type.

	Greater than a Year		Less than a Year	
	Partial Auto.	Full Auto.	Partial Auto.	Full Auto.
Determination	-34%	-12%	-25%	0%
Review	+68%	-7%	+57%	+60%
Recording	-19%	-24%	-5%	-50%
Submission	+14%	+50%	-8%	+25%

These results are consistent with other findings that automation generally does not affect the number of FTEs assigned to CPT II coding (three), but it does allow for time to be reallocated. Overall, practices with greater than a year of implementation experience that elected a fully automated workflow had more uniform benefits than other users. This demonstrates the interactive value of implementation duration and automation in support of quality data coding.

Key Takeaways

The results indicate that use of the CPT II Automation Tool supports optimized resource allocation for quality coding activities. Though use of the tool did not result in a uniform reduction of the number of FTEs assigned to these tasks, post-implementation, time spent on burdensome tasks – such as determination – decreased relative to the pre-implementation period. Greater benefits were experienced by those who elected to implement the fully automated workflow and by those whose duration of implementation is longer than a year.

Several key themes arose from this study that can inform future research.

- **Automation does not replace human involvement:** The need for staff is not replaced by using an automated CPT II coding tool. Rather, staff can use tools that automate workflow tasks to navigate the complexities of quality contracts and inclusion of quality codes. In fact, in some situations, automation may stimulate greater hiring as practices feel empowered to take on this work.

- **Automation optimizes workflows:** The tool allows coders to optimize their time, spending less effort determining what CPT II codes meet quality contract requirements. This frees time for other, less burdensome, CPT II coding tasks and can increase engagement and stave off burnout.

- **Penetration of value-contracts varies:** The survey supports the notion that value incentives are common in primary care, but are not as ubiquitous in specialties. Stewards of incentive contracts have a stated desire to engage with specialists more but have encountered challenges when trying to appropriately design and incentivize programs that do not undercut the complexity of patients. The data shows that automation of quality code capture may encourage and promote value-based incentive growth for specialists.

Future Opportunity

Findings from this survey demonstrate the value of automating the capture and documentation of diagnosis and procedure codes that support quality measurement. Results suggest automation helps optimize the allocation of resources and encourages greater engagement with quality contracts. This potentially supports the creation of practice-level infrastructures that facilitate value-based initiatives. Though the tool did not consistently result in resource reduction in the surveyed populations, it appears to have acted as an additional resource available to practices engaging with value-based care.

Of the practices that responded, satisfaction with the athenahealth CPT II Automation Tool was generally high. 75 percent of respondents indicated they were satisfied or very satisfied with the tool and recognized its utility in practice. When asked what improvements could be made, practices requested that it support a greater number of CPT II codes. The universe of QDCs is broad and the tool does not currently account for all variations utilized by quality contracts. This feedback will be considered by athenahealth as they refine their offerings.

CORE encourages additional, prospectively designed research to clarify the effect of resources, such as the athenahealth CPT II Automation Tool. Doing so can inform the modification of electronic standards and the creation of operating rules that standardize the implementation of automated solutions.

About athenahealth

athenahealth strives to cure complexity and simplify the practice of healthcare. Our innovative technology includes electronic health records, revenue cycle management, and patient engagement solutions that help healthcare providers, administrators, and practices eliminate friction for patients while getting paid efficiently. athenahealth partners with practices with purpose-built software backed by expertise to produce the insights needed to drive better clinical and financial outcomes. We're inspired by our vision to create a thriving ecosystem that delivers accessible, high-quality, and sustainable healthcare for all. Learn more at www.athenahealth.com.

About CAQH CORE

CORE convenes the industry to develop operating rules and standards that foster progress at scale. CAQH CORE Participating Organizations represent more than 75 percent of insured Americans, including plans, providers, vendors, government entities, and standard setting organizations. CAQH CORE Operating Rules and Certification Test Suites addressing eight healthcare business transactions have been issued to date. For more information, visit caqhcore.org.

Endnotes

1   health record (EHR) and revenue cycle vendor based in Watertown, Massachusetts

2   According to the 2023 CAQH Index 98% of medical industry claim submissions are carried out fully electronically using the ASC X12N 837 transaction. CORE analysis of the 2023 CAQH Index and CORE Certification data.

3   https://www.ama-assn.org/practice-management/cpt/criteria-cpt-category-ii-codes

4   FTE: Any employee who works an average of at least 30 hours per week for more than 120 days in a year. Part-time employees work an average of less than 30 hours per week. Retrieved from https://www.healthcare.gov/glossary/full-time-employee/

5   Full automation refers to a practice's election for the athenahealth CPT II Automation Tool to carry-out the 4 CPT II Coding Tasks with no manual intervention from the user.