Re-engineering the Coding Workflow: Assessing Today with an Eye toward Tomorrow

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EHRs, CAC, ICD-10-coding is in the midst of profound change. Which makes this the best time to re-engineer coding workflow. Five steps help HIM professionals assess and evolve coding workflows with an eye toward tomorrow.

Synergism-where total outcome is greater than the sum of individual parts-is fast entering the daily HIM vernacular.

That's because three forces are coming together to revolutionize the clinical coding function: electronic health records, computer-assisted coding (CAC), and ICD-10-CM/PCS. Taken together these changes will profoundly alter how coding is performed, managed, and integrated into the healthcare delivery system.

The convergence offers health organizations a unique opportunity to re-engineer their coding workflows with an eye toward the future, when health information is completely electronic and codes are assigned by a computer first and validated by coding professionals second. Tackling this redesign as a single process that addresses all three forces together can create a workflow that is more effective and efficient than the sum of its individual parts.

Five steps can help HIM professionals through a process to evaluate and change their coding workflows, beginning now to maximize the benefits.

Time Spent Now Equals Dollars Saved Tomorrow

With the ICD-10-CM/PCS deadline more than two years away, healthcare executives may question the need to undertake a coding workflow re-engineering project now. But there are good reasons to begin. Documenting the current process and establishing benchmarks are necessary steps in demonstrating value later. Tackling workflow can lead to faster process improvement, lower overall costs, and more informed ICD-10 budgeting.

Organizations that evaluate and re-engineer coding workflow have the opportunity to identify bottlenecks in clinical documentation, coding, and billing. They shore up broken processes and remedy intradepartmental disconnects that consume time and slow down clinical coders, ultimately slowing the revenue cycle. In some cases technology can facilitate the necessary workflow improvements; for example, CAC technology can automatically assign records to coders by speciality, diagnosis, procedure, or other factor.

Additionally, the human resources to conduct assessments and implement changes are more likely to be available now than they will be in future years as organizations approach the ICD-10 deadline. Internal staff may be increasingly committed to near-launch tasks, and external consultants may become scarce (and more expensive) as demand rises.

Finally, identifying the dollars required to upgrade or purchase technology necessary to streamline the coding process helps budgeting for future years. Fewer surprises make for happier CFOs-and stronger executive sponsorship of the project.

Five Steps to Re-engineer the Coding Workflow

1. Assess current workflow: map the process
2. Outline the future state: who, what, and where
3. Define the gaps and identify solutions

4. Set realistic expectations and timelines
5. Re-engineer the process (and celebrate success)

1. Assess Current Workflow

With executive support secured, the first step in the process is to evaluate and define the current workflow.

HIM professionals should map the coding workflow in a flowchart format. Mapping the flow by record type and coding location is a best practice, as coding may occur in many locations and in a variety of ways. Primary areas to include are ancillary, emergency, clinic, and same-day surgery coding.

The flowchart should begin at the first point of information capture and identify every feeder system involved in the coding process. Because information collection begins prior to the patient being admitted and may contain diagnoses, feeder systems such as scheduling, registration, and medical necessity validation are important steps in the process.

The next step, physician documentation, is the foundation for clinical coding and billing. It continues to take many formats. A brief survey of HIMSS Analytics Stage 6 EMR hospitals revealed a variety of physician documentation methods, including speech recognition, voice recognition, and structured EHR templates.1 Many facilities still use handwritten documentation, particularly for physician progress notes.

HIM professionals will need to gain a clear understanding of planned changes for physician documentation and the timeline under which changes will be implemented. Doing so will be important in identifying the impact on the coding process.

The current-state assessment also should identify opportunities to improve documentation and optimize the quality of narrative reports. Changes in physician documentation to support ICD-10-CM/PCS will require physician education in advance of implementation.

Furthermore, physician use of electronic, template-based documentation has a significant impact on the coding process and must be considered in the overall, multiyear plan. For example, one hospital converted to electronic, template-based physician documentation in the emergency department (ED). When the facility needed a hard copy of the ED record, it had grown from six pages to 50 pages. Despite the burgeoning charts, the quality of documentation available for coding had decreased. The templates were not clinically sound and lacked specificity.

HIM professionals should be involved in system selection whenever electronic, template-based physician documentation is considered, and they should be involved in template development. This will be especially true in ICD-10 coding.

The heightened specificity of ICD-10 will require clinicians to become more thorough in their documentation. Templates and their associated alerts and reminders must support this change. Well-written templates focused on documentation specificity will also enhance CAC accuracy and coder productivity.

Next, identify all technology applications that store or process codes. In addition to coding systems, these include financial, quality and performance, registration, laboratory, registries, and many other systems, including system interfaces. Questions to ask include:

- Will any systems be replaced? If so, when and how will the new system change coding workflow?
- How many systems do coders have to toggle between today? Will this change?
- Are all vendors ready for ICD-10? Which version will be ICD-10 ready? Which version will be ICD-10 compatible?
- Will interfaces between documentation systems and any coding applications also be updated as EHR, CAC, and ICD-10 are implemented?
- Which paper-based or scanned documents will become electronic? Can these documents be prioritized for becoming electronic?

Include All IT Systems in Gap Analysis-New Ones, Too

A southeast hospital conducted an ICD-10-CM/PCS gap analysis only to learn that a new anaesthesia billing system it had recently installed was not ICD-10 compatible. Worse yet, the system could not be upgraded.

The hospital was shocked; however, it never considered asking about ICD-10 compliance during the vendor selection process because the code set upgrade was not on its radar at that time.

2. Outline the Future State

Determining the future state of coding at the facility requires creative thinking on the part of HIM professionals and IT teams. They must consider new and evolving capabilities of CAC and EHRs while considering the interrogatives of ICD-10: who, what, and where.

Consider Who

Who will code which records is an important consideration in creating future coding workflows. The increased specificity of ICD-10-CM/PCS is driving the need for coding professionals to sharpen their skills, including their clinical knowledge of disease processes and surgical procedures. Traditionally coding professionals have focused their expertise around the type of encounter (inpatient, outpatient, emergency, or physician office). ICD-10-CM/PCS creates an opportunity to review coding workflow designations beyond encounter type.

For example, orthopaedic conditions are dramatically expanded in ICD-10. Coders with an in-depth knowledge of orthopaedics can be assigned these cases automatically using CAC routing technology. Additionally, they can be directly paired with orthopaedic physicians and clinical documentation improvement specialists to create a highly effective team. Cardiology, which also contains greater specificity in ICD-10, is another area that may benefit from specialized workflows.

In the six to 12 months following ICD-10-CM/PCS implementation, master coders should be shadowed and cross-trained in order to share knowledge and round out the coding team. Switching coders to other specialties over time also ensures adequate back-up coverage within the department. As necessary, outsourced coders can backfill processes during implementation of both CAC and ICD-10.

Finally, a frank conversation with the entire coding team is warranted with regard to the future state. With so many changes on the horizon, HIM directors must manage the coding staff's perceptions and expectations of the changes and determine the best path for each individual. Some organizations may have a need for alternative positions, such as clinical documentation improvement teams, and limited ICD-9 coding needs. (See the sidebar "Discussion Topics for Coding Teams," opposite, for a list of discussion topics.)

Define "What"

From a document perspective, the majority of HIM departments currently operate in a hybrid environment, part paper and part electronic. This will change over time as more and more of the paper-based documentation coders currently use becomes electronic. When plotting future coding workflow, HIM professionals should create timelines identifying when each document is expected to transition to electronic format.

These transitions should be factored into the future state workflow and the following questions asked:

- What will coders see when the information becomes electronic?
- Are the forms changing, and if so, how?
- How will the coders access the electronic information?

Understand "Where"

Defining future coding workflow involves answering two "where" questions.

The first question addresses physical locations, which will expand as technology advances. There will be greater focus on remote or virtual work. Future coding workflows should encompass increased communications between growing communities of virtual workers: coders, clinical documentation improvement specialists, denials management systems, and physicians. Technology, time zones, organizational culture, and state boundaries are among the factors to consider.

"Where" is also a question with regard to workflow assignments. For example, as HIM professionals look toward CAC, where will notifications of unreadable reports be sent? Where will claims denials resulting from incorrect CAC code assignment be identified and tracked? Where will these types of issues be routed for review and reconciliation? Where will coders look up references and resources?

3. Define Gaps

In the third step, HIM professionals conduct a gap analysis, comparing current coding workflows from step 1 with the desired future state in step 2. They identify and review the differences, discuss options for closing the gaps, and prepare a plan. While the workflow assessment process encompasses both CAC and ICD-10 needs, the types of gaps identified may vary.

Organizations that have already implemented CAC report that they required few new technology tools or services to move from manual to computer-assisted coding. CAC automatically routes cases to coders using predefined work queues, and it can easily accommodate the need for specialty coding as described above. In this regard, as part of their gap analyses HIM professionals should ask vendors how their CAC products funnel charts to coders and what flexibility they provide for future workflow changes.

ICD-10 represents a much wider gap in current and future states. Coders are expected to be less productive, so staffing needs may change. New roles may emerge in clinical documentation and query management as the organization's drive for more thorough, granular documentation proceeds. Productivity drops and potential new roles should also be factored into the gap analysis.

4. Set Realistic Expectations

Based on the gap analysis, HIM professionals can create a timeline that leads up to and extends past the ICD-10 implementation deadline in 2013. The timeline will also serve to set expectations and be a guide in budgeting. As in any major undertaking, facilities should expect change and accommodate it in their plans when it happens.

Best practice indicates that a majority of documents and physician documentation will be electronic and CAC will be in place prior to ICD-10. Cecelia Hilerio, RHIT, director of HIM at Robert Wood Johnson Foundation Hospital, has used CAC for three years and agrees the technology will "ideally be implemented prior to attempting the ICD-10 conversion." In her experience, it is the logical precursor to ICD-10 from a systems and personnel perspective.

5. Engineer the Process

The final step is to proceed with workflow re-engineering and technology implementation. Any steps taken today will save time and relieve stress in 2013, when it will be "all hands on deck" for ICD-10. HIM professionals should waste no time taking even small steps. In essence, a coding workflow re-engineering project conducted now is a drill-down into the changes needed for ICD-10. It is an open door to evaluate processes and eliminate waste.

Second, it is important to understand and take advantage of every technological capability in support of the coding process. Many of the newer EHR and CAC systems offer complex routing, work queues, triggers, and alerts to improve communications and eliminate bottlenecks between coding professionals and the various feeder systems and departments. Future systems will contain even greater opportunities to electronically route and process information.

Finally, ICD-10 is an overarching data management issue that will not be solved with a single technology or system. It extends well beyond coding workflows. Data management is a long-term process to improve the data upon which healthcare makes better patient care decisions. Identifying the synergies involved among all the stakeholders in the coding process is crucial to attaining this goal.

Discussion Topics for Coding Teams

Conversations with the coding team help manage staff perception and expectations of the changing workflow. Open communication helps determine the best path for each individual. Following are considerations and questions for discussion.

Category	Considerations and Questions to ask
Personnel	Keep coders in the loop and involved in the process Have coders participate in workflow re-engineering Discuss how productivity should be measured in the future state If planning a "master coder by specialty" strategy for ICD-10, ask which coders have specific interests or strengths
Technology	Position technology (CAC, EHR, ICD-10) as a tool to support the coding process, not a computer system to replace people Discuss benefits the new technology will bring to coders, such as greater control over workload Identify coders who have technology experience they can share with others
Training	Discuss which training methodology works best for each coder Identify coders who can train others Determine who will provide back-up and maintain productivity while coders are being trained Ask if any coders are planning to obtain advanced degrees and determine how organizational efforts can support or complement these objectives

Note

1. Cannon, Jan, and Susan Lucci. "Transcription and EHRs: Benefits of a Blended Approach." *Journal of AHIMA* 81, no. 2 (Feb. 2010): 36–40.

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