Best Practices for Coding Productivity: Assessing Productivity in ICD-9 to Prepare for ICD-10

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As organizations begin to prepare for ICD-10 implementation, the question of coder productivity is usually close to the top of everyone's list. Addressing productivity in ICD-9-CM will provide a baseline of information crucial for the transition to ICD-10-CM/PCS.

The AHIMA e-HIM Coding Benchmark Workgroup and the 2007 Coding Benchmark Survey have assessed the process of monitoring coding productivity. This article outlines recommended ICD-9-CM productivity standards based on four record types:

- Inpatient
- Ambulatory, outpatient, and interventional surgery and procedures
- Emergency department (ED)
- Ancillary testing

The facilities represented in the survey spanned the entire spectrum of automation. Some facilities were completely paper-based, some used a hybrid record, and others had a high degree of documentation contained in an electronic health record (EHR). Sources of the data from which coders must code affect productivity expectations.

Inpatient Coding

Based on the experience of the workgroup surveyed, coder productivity was about 24 inpatient records per eight-paid-hour day. This figure means coders would spend about 20 minutes per record, finishing three per hour. This productivity expectation may need to be adjusted based on case mix, organizational complexity, acuity, and work assignments other than coding.

Inpatient coding will include a mixture of clinical service types and lengths of stay. Inpatient coding encompasses:

- ICD-9-CM coding for diagnoses and procedures
- Initiation and follow up of physician queries
- Assigning discharge disposition
- Sequencing diagnoses and procedures according to coding guidelines
- Abstracting sufficient data to drop the claim for billing

Factors that facilitate the inpatient coders' ability to achieve optimal productivity include:

- Environment (quiet work area and large/dual screens)
- All data contained in the EHR or limited number of systems that must be accessed to obtain clinical information
- An EHR with a narrative structure rather than documentation that is segregated by clinician type or data type
- Limited keystrokes
- Ease of access to clinical information
- Access to at least quarterly education
- Online access to reference materials including *Coding Clinic* and edit guidance
- Timely transcription of necessary documentation (e.g. operative reports)
- Remote coding with high quality, reliable connectivity

Ambulatory, Outpatient, and Interventional Surgery and Procedures Coding

Daily productivity expectations for coding of invasive procedures are 40 encounters per eight-paid-hour day, which is equal to five per hour, or 12 minutes per encounter or operative session. This expectation may need to be adjusted in recognition of ambulatory surgery departments that may serve patients with complex conditions.

Invasive procedures include a mixture of routine ambulatory surgeries, outpatient procedures, interventional cardiology/radiology, cardiac catheterizations, spinal injections, and nerve blocks. This type of coding encompasses:

- Assigning ICD-9-CM diagnosis and procedures codes
- Assigning CPT-4 and HCPCS procedure codes not assigned by the charge description master (CDM), or reviewing and revising CPT-4 and HCPCS codes assigned by the CDM
- When applicable, assigning modifier to the CPT-4 codes
- Clearing Correct Coding Initiative (CCI) edits
- Validating medical necessity for the service
- When indicated, querying the physician for additional information
- Abstracting sufficient data to drop the claim for billing

Excluded from the above expectations when coding invasive procedures are:

- Other services that involve extensive dosing or related procedures, such as chemotherapy administration and infusion services
- Assigning revenue codes
- Coding of services such as observation care, infusion and drug administration services, electroconvulsive therapy and behavior modification services, dialysis, and clinic or physician office services
- Clerical duties that do not require coding skills

Factors that facilitate coding professionals' ability to achieve optimal productivity include:

- Timely completion of surgical procedure report (dictated or written)
- Timely access to pathology report
- Limited system interruptions and downtime
- Access to an encoder coupled with minimal reference materials (*Coding Clinic, CPT Assistant,* and CCI edits)

Emergency Department (ED) Coding

Productivity expectations for coding professionals working with ED encounters is 120 encounters per eight-paid-hour day, or 15 encounters per hour at four minutes per encounter. Recognizing that some EDs may serve patients with complex conditions, the expectations may need to be adjusted accordingly. Emergency department coding encompasses:

- Assigning ICD-9-CM diagnosis codes
- Assigning ICD-9-CM and CPT-4 procedure codes
- Applying modifiers, where appropriate, to CPT-4 codes
- Validating medical necessity for service
- When indicated, querying the physician for clarification of documentation
- Calculating infusion times
- Abstracting sufficient data to drop the claim for billing

For the purposes of the above expectations, ED coding does not include assigning the facility evaluation and management (E/M) level based on the facility-specific criteria or the ED physician's E/M code.

Excluded from the above expectations when coding ED encounters are:

- Coding CPT or HCPCS codes that are generated by the facility's CDM
- Coding services in the 70xxx or 80xxx range in CPT-4
- Addressing CCI edits unrelated to the codes entered by the coder
- Picking up records from various locations
- Abstracting quality measures or occurrence data

- Abstracting data for registries
- Assembling or analyzing records for deficiencies
- Validating, capturing, or entering charges
- Performing other clerical functions that do not require coding skills

Ancillary Tests Coding

Daily productivity expectations for coding of ancillary tests are 240 encounters per eight-paid-hour day or 30 per hour at two minutes per report or test. Ancillary test coding encompasses:

- Assigning ICD-9-CM diagnosis codes
- Validating medical necessity for the service
- Querying the physician for additional information when indicated
- Identifying missing orders or order information
- Abstracting sufficient data to drop the claim for billing

Excluded from the above expectations when coding ancillary tests are:

- Services that are addressed in the ambulatory surgery evaluation, including interventional and invasive testing such as angiographies, cardiac catheterizations, and nerve blocks
- Other services that involve extensive dosing or related procedures, such as chemotherapy administration or infusion services
- Assigning CPT-4 codes to the test performed (this should be completed through the CDM)
- Performing other clerical functions that do not require coding skills

Included in the factors that facilitate coding professionals' ability to achieve optimal productivity are:

- Online access to the physician's written order, including a valid diagnosis or reason for the test
- Online access to national coverage determinations and local coverage determinations policies as well as other medical necessity reference materials
- Timely transcribed test reports/results
- Access to an encoder coupled with minimal reference materials (*Coding Clinic, CPT Assistant,* and CCI edits)

By increasing optimal productivity factors and working to decrease factors that negatively impact productivity, healthcare organizations should see a positive effect on coder productivity levels. Given the complexities in the prospective payment system, including MS-DRGs and present on admission (POA), as well as the upcoming transition to ICD-10-CM/PCS, long-term coder productivity is critical for healthcare organizations.

Daily Productivity Expectations

Productivity expectations may need to be adjusted based on individual facility patterns and needs.

	Records Per Day	Records Per Hour	Time Per Record
Inpatient Coding	24 records	3 records	20 minutes
Ambulatory, Outpatient, and Interventional Surgery and Procedures Coding	40 records	5 records	12 minutes

Emergency Department Coding	120 records	15 records	4 minutes
Ancillary Testing Coding	240 records	30 records	2 minutes

References

Wilson, Donna D. and Dunn, Rose T. *Benchmarking to Improve Coding Accuracy and Productivity.* Chicago: AHIMA Press, 2009.

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