DRG Grouping and ICD-10-CM/PCS

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By Margaret M. Foley, PhD, RHIA, CCS

Prior to the October 1, 2015 implementation of ICD-10-CM/PCS, every hospital must examine how the new code set will impact MS-DRG reimbursement. A recent Centers for Medicare and Medicaid Services (CMS) analysis indicates the overall effect of the transition to ICD-10 on hospital reimbursement will be negligible. However, the effect on any individual hospital may vary due to that facility's case mix or coding accuracy.[1] In order to assess the impact on their facility, coding managers need to be familiar with how the ICD-9 and ICD-10 classification systems differ and how these differences are addressed in the MS-DRG grouper logic for ICD-10.

MS-DRG Grouper Logic Addresses ICD-10 Transition

The MS-DRG grouper logic for ICD-10 has been designed so that for almost all cases, the DRG assigned for a case coded in ICD-10 is the same as in ICD-9.[2] The basic concepts of the DRG system have also remained stable: the number, title, and structure of the DRGs have remained the same; there are still pre-Major Diagnostic Category (MDC) DRGs; the principal diagnosis still determines the MDC to which a case is assigned; and groupings of DRGs still exist where the presence or absence of a major complication or comorbidity (MCC) or a complication or comorbidity (CC) as a secondary diagnosis changes the DRG. Some modifications have been made to the grouper logic, however, to account for inherent differences between the ICD-9 and ICD-10 coding systems while still ensuring that the same DRG is assigned. The grouper logic is detailed in the Definitions Manual for Version 32 of the MS-DRG Grouper, which is available online via the CMS website.[3]

ICD-10 combination codes that incorporate a CC or MCC into a single diagnosis code pose an issue for DRG grouping. A combination code is a single code which represents multiple clinical issues. Clinical concepts that required two or more codes in ICD-9 only require a single combination code to be assigned in ICD-10. For example, atherosclerotic heart disease with unstable angina is reported with two codes in ICD-9 (one code for the atherosclerosis and one code for the unstable angina). In ICD-10, this clinical concept is reported with a single code: I25.110, Atherosclerotic heart disease of native coronary artery with unstable angina pectoris. The DRG grouper issue is that in ICD-9, cases with atherosclerosis as the principal diagnosis and unstable angina, which is a CC, as a secondary diagnosis result in the case being assigned to a higher paying "with CC" DRG, when applicable. With a single combination code being reported in ICD-10, however, there is no separate secondary diagnosis code to cause the case to group to a "with CC" option.

In response to this, the ICD-10 MS-DRG grouper logic allows a limited number of diagnosis codes to serve as a CC or MCC for themselves when listed as the principal diagnosis. Appendix J of the MS-DRG Definition Manual includes a list of these diagnoses. Examples of principal diagnoses that can serve as MCCs for themselves include:

- K70.41, Alcoholic hepatic failure with coma
- L89.153, Pressure ulcer of sacral region, stage [3]

Examples of principal diagnoses that can serve as CCs for themselves include:

- D57.21, Sickle-cell/Hb-C disease with acute chest syndrome
- K50.114, Crohn's disease of large intestine with abscess

Differences in Specificity Between ICD-9 and ICD-10

Some code options that were available in ICD-9 are not included in ICD-10 because the clinical distinctions are no longer commonly used.[4] For example, ICD-9 has individual codes to represent depressive disorder, not otherwise specified (311) and major depression (296.20). It should be noted that code 311 is not a CC and code 296.20 is a CC. In ICD-10 both depressive disorder and major depression are reported with the same code, F32.9, Major depressive disorder, single episode, unspecified.

This code is not a CC. Another example is seen with coding malignant hypertension and unspecified hypertension. In ICD-9, code 401.9, which is a non-CC, is assigned for unspecified hypertension and code 401.0, which is a CC, is assigned for malignant hypertension. In ICD-10, the same code, I10, is assigned for both unspecified hypertension and malignant hypertension.

For the purpose of developing the ICD grouper logic, when the ICD-10 system provides fewer code choices, the ICD-10 diagnosis code is treated like the most frequently occurring of the multiple ICD-9 code options. For example, the ICD-10 hypertension code I10 is not designated as a CC, like the ICD-9-CM hypertension code 401.9. This decision was made because code 401.9 was reported more commonly than code 401.0 in the CMS dataset used for analysis.

These examples notwithstanding, the ICD-10 classifications typically provide greater code specificity than the ICD-9-CM classification. For the purposes of DRG logic, typically, the more specific ICD-10 code is treated in the same way as its less specific ICD-9 counterpart for grouping purposes. For example, in ICD-10-CM, there are three code choices for atrial flutter:

- I48.3, Typical atrial flutter
- I48.4, Atypical atrial flutter
- I48.92, Unspecified atrial flutter

For grouping purposes, all three of these ICD-10 codes are designated as CCs because the single ICD-9 code option for atrial flutter, code 427.32, is a CC. Similarly, several new codes were added to ICD-10 which further specify asthma based on clinical descriptors such as mild, moderate, severe, persistent, and intermittent. All of the new codes for these more specific types of asthma which do not include exacerbation or status asthmaticus in the code titles are not designated as CCs because the ICD-9-CM code 493.90, Asthma, unspecified, is a non-CC for the purposes of DRG grouping.

These decisions and designations were made to ensure DRG grouping would remain the same during the transition from ICD-9 to ICD-10, regardless of the system in which a given case was coded. However, the greater specificity provided by ICD-10 codes is one of the most salient features of the new code set. In the future, it is anticipated that the DRG grouper logic will be refined after CMS has analyzed claims data including the more specific ICD-10 codes.

Differences in Procedure Coding Between ICD-9 and ICD-10

Procedure coding differs greatly between ICD-9 and ICD-10. For example, some procedures that were reported with a single code in ICD-9 require two codes in ICD-10. To handle this reporting difference, grouper logic for ICD-10 includes a number of procedure codes that result in a different DRG when reported alone versus when reported along with another procedure code.

For example, when ICD-10-PCS code 0JH608Z, Insertion of Defibrillator Generator into Chest Subcutaneous Tissue and Fascia, Open Approach, is reported alone, DRG 245 AICD Generator Procedures is assigned. However, when code 0JH608Z is reported along with code 0JPT0PZ, Removal of Cardiac Rhythm Related Device from Trunk Subcutaneous Tissue and Fascia, Open Approach, to indicate a generator replacement (codes assigned for the removal of old device and the insertion of a new device), a DRG for Cardiac Defibrillator Implant (DRGs 222 through 227) is assigned, resulting in a higher payment to the facility.

Differences in Coding Guidelines Could Lead to Different DRGs

Differences in coding guidelines will result in cases grouping to different DRGs in ICD-10. Coding staff need to be aware of differences in guidelines to recognize that some DRG shifts noted when moving from ICD-9 to ICD-10 may in fact be deliberate. For example, the guideline for selection of the principal diagnosis in cases of admissions for anemia due to an underlying malignancy is different in ICD-9 and ICD-10. In ICD-9, the anemia is assigned as the principal diagnosis. In ICD-10, the code for the malignancy is assigned as the principal diagnosis. This guideline difference will result in a legitimate change in DRG when the case is coded in ICD-9 versus ICD-10.

Differences in Case Mix from ICD-9 to ICD-10

A CMS analysis in which more than 10 million claims coded in ICD-9 were converted to ICD-10 provided estimates of the positive and negative percentage changes in reimbursement for the top 25 MS-DRGs.[5] For example, a small increase in reimbursement is expected for cases coded in ICD-10 assigned to MS-DRG 003, ECMO or Tracheostomy with Mechanical Ventilation for 96+ Hours or Principal Diagnosis Except Face, Mouth and Neck with Major Operating Room Procedure.

Conversely, a small decrease in reimbursement is projected for cases assigned to MS-DRG 48, Hip and Femur Procedure Except Major Joint with CC. Depending upon the DRGs that are more commonly coded by a given hospital, the overall impact of the shift to ICD-10 on reimbursement will vary. Additionally, the CMS analysis of claims data did not involve recoding records. Therefore, a facility may realize a different overall impact on reimbursement when records are assigned ICD-10-CM/PCS codes based upon documentation in actual records.

Coding Accuracy Influences ICD-10 Impact

A facility's accuracy of ICD-10 code assignment will also influence the overall impact of implementing the ICD-10 code sets. The extent to which a hospital's coding staff assigns codes appropriately may also result in differences in DRGs and reimbursement. These differences need to be validated to determine if the change in DRG is correct or the result of a coding error. For example, injury codes in ICD-10 require a seventh character that identifies the nature of the encounter (i.e., initial, subsequent, or sequela). The assignment of the same injury code with a different seventh character (i.e., initial vs. subsequent) can result in differences in MS-DRG assignment, which has a significant impact on reimbursement.

Another example is the coding for the closure of an ileostomy. These cases may be coded incorrectly due to differences in ICD-9 and ICD-10. In ICD-9, this procedure requires a single code. In ICD-10, two codes are required: one for the repair of the intestine and another for the repair of the abdominal wall. If both codes are not reported, an incorrect DRG is assigned.

Other Groupers Also Determine Hospital Reimbursement

CMS is not the only game in town. For example, many state Medicaid programs use the 3M APR-DRG Grouper to determine hospital reimbursement. Similar analyses on the impact of ICD-10 implementation on reimbursement related to these different payers and groupers must also be conducted.

Undoubtedly, the transition to ICD-10 presents some challenges. However, through the analysis of coding and DRG data prior to implementation, hospitals can implement measures to minimize the impact on both the coding staff and the facility's bottom line.

Notes

[1] Mills, Ronald E. "Estimating the impact of the transition to ICD-10 on Medicare inpatient hospital payments." ICD-10 Coordination and Maintenance Committee presentation, March 15, 2015, Baltimore, MD. www.cms.gov/Medicare/Coding/ICD9ProviderDiagnosticCodes/Downloads/2015-03-18-Impact-ICD10-Transition.pdf.

[2] Mills, Ronald E. et al. "Impact of the Transition to ICD-10 on Medicare Inpatient Hospital Payments." *Medicare and Medicaid Research Review* 2, no. 2 (2011): E1-E13. www.cms.gov/mmrr/Downloads/MMRR2011_001_02_A02.pdf.

[3] Centers for Medicare and Medicaid Services. "ICD-10 MS-DRG Conversion Project." April 7, 2015. www.cms.gov/Medicare/Coding/ICD10/Downloads/ICD-10-MS-DRG-v32-Definitions-Manual-Text.zip.

[4] Mills, Ronald E. et al. "Impact of the Transition to ICD-10 on Medicare Inpatient Hospital Payments." *Medicare and Medicaid Research Review.*

[5] Mills, Ronald E. "Estimating the impact of the transition to ICD-10 on Medicare inpatient hospital payments." ICD-10 Coordination and Maintenance Committee presentation.

Margaret M. Foley (margaret.foley@temple.edu) is associate professor in the health information management department at Temple University.

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