# Severity-Adjusted DRGs for FY08?: CMS Proposes DRG Refinements Based on Severity of Illness



*by Sue Bowman, RHIA, CCS*

If approved, the hospital inpatient prospective payment system (IPPS) proposed rule, published in the May 3, 2007, Federal Register, will bring major changes to the current Medicare DRG system for fiscal year (FY) 2008.

In the proposed rule, the Centers for Medicare and Medicaid Services (CMS) propose 745 new severity-adjusted DRGs (Medicare Severity DRGs, or MS-DRGs) to replace the current 538 DRGs (referred to as CMS DRGs) in order to more fully capture severity of illness among patients.

Based on CMS's analysis, the proposed MS-DRGs will increase the explanation of variance in hospital resource use relative to the current CMS DRGs by 9.4 percent. CMS is proposing to adopt the MS-DRGs for the long-term care hospital PPS as well as the IPPS, as both sets of DRGs are based on the same DRG structure. This article outlines the details of the proposed rule.

## Revisions to the CC List

CMS's efforts to better recognize severity of illness began with a comprehensive review of the complication/comorbidity (CC) list. Other than the addition of new diagnosis codes, the CC list has not been revised or updated since its inception. However, there have been dramatic changes in the accuracy and completeness of secondary diagnosis coding, the characteristics of patients admitted to hospitals, and the practice patterns within hospitals.

The net effect of better coding of secondary diagnoses, reductions in hospital length of stay, increased availability of post-acute care services, and the shift to outpatient care is that nearly 80 percent of patients admitted to a hospital now have a CC. As a result of the changes that have occurred during the 22 years since the implementation of the IPPS, the CC list, as currently defined, has lost much of its power to discriminate hospital resource use.

To update the CC list, each secondary diagnosis was reviewed to evaluate its assignment as a CC or non-CC using statistical information from the Medicare claims data and applying medical judgment based on current clinical practice. Because chronic illness diagnoses usually do not cause a significant increase in hospital resource use unless there is an acute exacerbation present or there is a significant deterioration in the underlying chronic condition, most chronic diseases without a significant acute manifestation were deleted from the revised CC list.

The revised list is essentially comprised of significant acute diseases, acute exacerbations of significant chronic diseases, advanced or end-stage chronic diseases, and chronic diseases associated with extensive debility. Compared to the existing CC list, the revised list requires a secondary diagnosis to have a significantly greater impact on hospital resource use.

Based on the current CC list, 77.6 percent of patients have at least one CC present, using FY 2006 MedPAR data. Based on the revised CC list, the percent of patients with at least one CC present would be reduced to 40.3 percent.

## Proposed MS-DRGs

CMS used the CMS DRG system as the starting point for revising the DRGs to better recognize resource complexity and severity of illness. The first step was consolidating the existing CMS DRGs into new proposed base MS-DRGs.

Diagnosis codes were then subdivided into three different levels of CC severity: major CC (MCC), CC, and non-CC. Diagnosis codes classified as MCCs reflect a higher level of severity than those classified as CCs. Secondary diagnoses that are classified as non-CCs do not affect the DRG assignment.

The categorization of diagnoses as an MCC, CC, or non-CC was accomplished using an iterative approach in which each diagnosis was evaluated to determine the extent to which its presence as a secondary diagnosis resulted in increased hospital resource use.

For some secondary diagnoses assigned to the CC subclass, CMS's medical consultants identified special clinical situations in which the diagnosis should not be considered a CC. In such clinical situations, the CC exclusion list was used to exclude the secondary diagnosis from consideration in determining the CC subgroup (essentially making the secondary diagnosis a non-CC).

In designating a proposed MS-DRG as one that will be subdivided into subgroups based on the presence of a CC or MCC, CMS developed a set of criteria that will have to be met in order to warrant creation of a CC or MCC subgroup within a base MS-DRG:

- A reduction in variance of changes of at least 3 percent.
- At least 5 percent of the patients in the MS-DRG fall within the CC or MCC subgroup.
- At least 500 cases are in the CC or MCC subgroup.
- A minimum 20 percent difference in average charges between subgroups.
- A $4,000 difference in average charges between subgroups.

As a result of applying these criteria, a base MS-DRG may be subdivided in one of three ways:

- DRGs with subgroups (MCC, CC, and non-CC)
- DRGs with two subgroups consisting of an MCC subgroup but with the CC and non-CC subgroups combined (these groups are referred to as "with MCC" and "without MCC")
- DRGs with two subgroups consisting of a non-CC subgroup but with the CC and MCC subgroups combined (these groups are referred to as "with CC/MCC" and "without CC/MCC")

Under the current CMS DRGs, 78 percent of cases are assigned to the highest severity levels (CC) and the remaining 22 percent are assigned to the lowest severity levels (non-CC). Applying the three severity subclasses in the MS-DRG system to FY 2006 data would result in approximately 22 percent of patients being assigned to the severity subgroup with the highest level of severity (MCC), 41 percent assigned to the lowest severity subclass (non-CC), and 37 percent assigned to the middle severity subclass (CC).

CMS believes the adoption of the MS-DRGs would create a risk of increased aggregate levels of payment as a result of increased documentation and coding. Coding that has no effect on payment under the current CMS DRGs may result in a case being assigned to a higher-paid DRG under the MS-DRGs. Thus, more accurate and complete documentation and coding may occur because it will result in higher payment under the MS-DRGs.

CMS believes an adjustment to the standardized payment amount is warranted in order to eliminate the effect of changes in coding or classification of hospital discharges that do not reflect real changes in case mix. Given the similarity between coding incentives using the APR-DRGs in Maryland and the proposed MS-DRGs, CMS analyzed Maryland data to develop an adjustment for improvement documentation and coding. As a result of this analysis, CMS is proposing to reduce the IPPS standardized amounts by 2.4 percent each year for FY 2008 and FY 2009.

## Evaluation of Alternative Severity-Adjusted DRG Systems

CMS contracted with RAND Corporation to evaluate alternative DRG systems that may better recognize severity than the current CMS DRGs. RAND's interim report provided an overview of each alternative DRG system, their comparative performance in explaining variation in resource use, difference in DRG grouping logic, and case-mix change. The following products were included in this evaluation:

- CMS DRGs modified for AP-DRG logic
- Consolidated Severity-Adjusted DRGs (CS-DRGs)
- Refined DRGs (HSC-DRGs)
- All-Payer Severity DRGs (APS-DRGs) with Medicare modifications
- Solucient Refined DRGs (Sol-DRGs)

The final report is due by September 1 and will include further analysis of the five alternative DRG systems and the additional evaluation of the MS-DRGs.

Since RAND has not completed its evaluation of severity-adjusted DRG systems, CMS is not ready to propose use of one of the alternative systems being evaluated. Even if RAND had completed its evaluation, CMS would need to explore whether any transition issues must be resolved before CMS is ready to propose adoption of one of these systems. Although CMS is proposing to adopt MS-DRGs for FY 2008, this decision would not preclude them from adopting any of the systems being evaluated by RAND for FY 2009.

**Hospital-Acquired Conditions**

The Deficit Reduction Act of 2005 requires the secretary of Health and Human Services to select at least two conditions that:

- Are high cost, high volume, or both
- Result in the assignment of a case to a DRG that has a higher payment when present as a secondary diagnosis
- Could reasonably have been prevented through the application of evidence-based guidelines by October 1, 2007

For discharges occurring on or after October 1, 2008, hospitals will not receive additional payment for cases in which one of the selected conditions was not present on admission.

CMS is proposing the selection of six conditions that, starting in FY 2009, would not trigger a higher DRG unless they are present on admission:

- Catheter-associated urinary tract infections
- Pressure ulcers (decubitus ulcers)
- Staphylococcus aureus septicemia
- Object left in surgery
- Air embolism
- Blood incompatibility

Note that although hospitals would have to start reporting whether these conditions are present on admission for FY 2008, they would not affect reimbursement until FY 2009.

**References**

Centers for Medicare and Medicaid Services. "IPPS Regulations and Notices." Available online at www.cms.hhs.gov/AcuteInpatientPPS/IPPS/list.asp.

RAND Corporation. "Evaluation of Severity-Adjusted DRG Systems: Interim Report." March 2007. Available online at www.cms.hhs.gov/Reports/downloads/Wynn0307.pdf.

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