

Coding and Documentation: Medicare Severity Diagnosis-Related Groups and Present-on-Admission Documentation

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Effective October 1, 2007, the Centers for Medicare and Medicaid Services has changed its methodology for determining the diagnosis-related group for hospitalized patients. In an effort to more accurately reflect severity of illness, the 538 diagnosis-related groups have been converted to 745 new Medicare severity diagnosis-related groups. In addition, selected hospital-acquired complications not identified as present on admission will no longer be reimbursed. The changes will have profound effects on reimbursement for hospitalizations. To minimize financial losses under the new rules, hospitals and physicians will have to devote significant resources and attention to improved documentation. This article will discuss the new payment system, the physician's role in ensuring that all clinically important diagnoses are captured by coding specialists, and strategies that can be employed to respond proactively to the challenge. *Journal of Hospital Medicine* 2009;4:124–130. © 2009 Society of Hospital Medicine.

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You admitted a patient to the hospital for an upper gastrointestinal bleed. At the time of admission, the patient's mucous membranes were dry, and he was mildly orthostatic and tachycardic. He was given several boluses of normal saline, and he improved. All of this was carefully documented in the medical record. Shortly after discharge, the following cryptic message arrives in your mailbox:

The patient was admitted with gastrointestinal bleeding and noted to have dry mucous membranes, orthostatic hypotension, and tachycardia. He was given intravenous saline. What diagnosis, if any, required treatment with 2 boluses of normal saline?

You remember the patient well but still pull the chart to review the case. It appears obvious that the patient was dry and needed fluid resuscitation. You are confused and do not know how to respond. Your response is just that: "Patient was dry and needed fluid resuscitation."

Several days later, you get another message thanking you for your reply but describing what the coder actually needed to be able to code appropriately. Had you answered "hypovolemia" or "dehydration," it would have changed the diagnosis-related group (DRG) and reimbursement from "gastrointestinal hemorrhage" (\$2700) to "gastrointestinal hemorrhage with complica-

tions" (\$4600). Because you did not provide the right answer, the institution was reimbursed for the lesser amount. Now you are left with more questions. Hypovolemia is exactly what the patient had; you basically said so, and it was described throughout the chart, although not in so many words. Why did the coder not just say what was needed? Why can you not just answer again? Why are you being asked to play what appears to be a stupid game when you have sick patients to care for and never enough time? What can you do to prevent this from happening the next time? What other surprises are in store for you?

INTRODUCTION

Beginning October 1, 2007 the Centers for Medicare and Medicaid Services (CMS) implemented changes in the hospital inpatient prospective payment system that have profound implications for how physicians code and document hospital care. These changes were implemented in an effort to better recognize severity of illness,¹ and the information will be used to plan for current and future needs of hospitals, insurers, caregivers, and patients. Severity of illness is a measure of the patient's overall health status reflected by the resources necessary for care and the risk of morbidity and mortality. Factors including the presenting illness, comorbid conditions, functional status, nutritional status, and age contribute to the severity of illness. From a physiologic perspective, factors reflecting loss of homeostatic control such as abnormal vital signs, poor oxygenation, and altered sensorium are determinants of severity of illness. For hospitals, severity of illness is generally reflected by the case mix of concomitant illness. Thus, a patient with community-acquired pneumonia without other comorbidities requires fewer resources and has a greater chance of a good outcome than the same patient with complications such as acute congestive heart failure. In the context of this article, severity of illness should be considered an indication of the complexity of the patient's presentation. Reporting comorbidities and illness severity will help better define quality of care and medical necessity for that care.

The DRG system provided a set payment for a given hospitalization based on primary and sometimes secondary diagnoses. The new system, using Medicare severity diagnosis-related groups (MS-DRGs), accounts for all diagnoses present at the

time of admission and all diagnoses made during the hospitalization.

This article discusses the value of appropriate documentation and outlines changes that physicians will need to make to ensure optimal coding. The value of appropriate documentation is described. Specific terminology is illustrated so physicians can document properly and coders can easily extract the necessary information from the medical record to code appropriately. Finally, specific strategies institutions can implement to support physicians and coders are suggested.

A PRIMER ON CODING AND MEDICAL DOCUMENTATION

Prior to October 1, 2007, the DRG for a given hospitalization was calculated from the principle diagnosis and in some cases 1 secondary diagnosis that represented a significant complication or comorbidity. For example, a patient admitted to the hospital with abdominal pain diagnosed as a peptic ulcer would have a DRG to reflect the ulcer. If the patient also had anemia secondary to blood loss from the ulcer, this would serve as a complication, and a DRG with a comorbidity or complication and a higher case weight would be assigned. Additional significant complications would not further alter the DRG.

The new guidelines recognize 3 levels of severity for secondary diagnoses. The DRG from the principal diagnosis can be associated with other diagnoses that recognize no complication or comorbidity, a complication or comorbidity, or a major complication or comorbidity. Thus, a patient admitted with a duodenal ulcer may have a secondary diagnosis such as hypertension, which is not considered significant enough to complicate the DRG, a complication such as ileus, or a major complication such as perforation or heart failure. Depending on the clinical circumstances, a patient admitted with a principal diagnosis of duodenal ulcer could have any of 3 DRGs.

Of all the information contained in the medical record, coders can use only documentation by physicians who are directly caring for the patient during that admission. This includes documentation by resident physicians, physician assistants, or nurse practitioners if the attending documents agreement. Notes of nurses and allied health professionals cannot be used. Consultants' notes can also be used for coding, except when their find-

ings contradict those of the attending physician. In this case, 1 of 2 things can happen. The coder may use the documentation of the attending physician or, if clarification of the appropriate diagnosis or procedure is necessary, query the attending physician. Pathology and radiology reports and laboratory findings cannot be used unless the diagnoses are documented by the attending.

Because coders can use only documentation that follows universal terminology, physicians need to understand coding principles and learn to document using appropriate terminology.^{2,3} This includes documentation of diagnoses, conditions, symptoms, or procedures defined by CMS. The large number of vagaries in the coding vernacular used by CMS sometimes makes this lexicon confusing and difficult for physicians. To ensure appropriate documentation, physicians must abandon “doctorese,” the shorthand vernacular that is commonly used for documentation. Even when a coder is able to correctly infer the diagnosis, he or she cannot use this information because the diagnosis was not specifically documented. It will either be lost or generate a query; both are negative consequences for the hospital and physician because reimbursement might be inappropriately low and the true level of severity of illness might not be appreciated.

Examples of this are myriad (see Appendix B) and include the following:

- Shorthand notation, such as ↓Na (hyponatremia) and ↓plts, (thrombocytopenia) is not acceptable; the actual diagnosis must be written.
- Often, there is no documentation of the diagnosis at all, but physicians read between the lines to glean the diagnosis. A note states “dysuria” followed by “+U/A,” leaving the assessment blank. The plan says “ciprofloxin 500BID X 3d.” Most physicians recognize this as shorthand for an uncomplicated urinary tract infection, but the documentation is incomplete because the assessment is omitted, and the coders will not be able to code.
- A note documents an abnormal laboratory value that is intended to reflect a diagnosis (eg, Na⁺ = 117, restrict fluids). Coders likely understand that hyponatremia is the diagnosis, but they cannot code it because coding rules state it is only an abnormal laboratory value, not a diagnosis. Hyponatremia must be written in the medical record.

In most circumstances, a few simple guidelines will help:

1. Avoid abbreviations. Full diagnoses should be written in longhand rather than abbreviations or symbols. Use a diagnosis when appropriate, rather than just the symptom, such as hypoxia for dyspnea.
2. Write complete SOAP notes. Always document the diagnosis for which any treatment is rendered or evaluation performed. In other words, always write complete SOAP notes, not SOP notes.
3. Become familiar with rules and concepts of coding and documentation. Some peculiarities of coding rules make little sense to physicians and may appear arbitrary. Certain diagnoses, conditions, or descriptive terms that physicians commonly use cannot be used for coding purposes. These peculiarities will simply need to be learned or handled by queries from coders or real-time chart review by coding personnel. For example, although exacerbation of chronic obstructive pulmonary disease is recognized in coding rules, exacerbation of congestive heart failure codes to a nonspecific code, and the physician must document it as acute on chronic or acute congestive heart failure. Likewise, the new terminology adopted by the National Kidney Foundation for acute renal failure, acute kidney injury, has no code. Because both of these diagnoses serve as major comorbidities, they have major financial implications for hospitals.
4. Be thorough. All clinically significant conditions noted should be documented and coded. According to CMS rules, a condition, whether major or minor, is clinically significant if it requires any of the following:⁴
 - Clinical evaluation
 - Therapeutic treatment
 - Diagnostic procedures
 - Extended length of hospital stay
 - Increased nursing care and/or monitoring.
5. Avoid rule-out diagnoses. It is perfectly acceptable to qualify an uncertain diagnosis. For example, suspected pneumonia can be documented as “probable” or “possible.” If you document it as such and empirically treat for pneumonia, the coder may document pneumonia as the diagnosis. Diagnoses that have been ruled out should not be documented. For example, a patient is admitted with neutropenic fever and suspected sepsis. The patient may be given empirical therapy, but if sepsis is ruled out and the treatment is stopped, sepsis is not an appropriate diagnosis.
6. Identify the principal diagnosis. The principal diagnosis is defined as the condition responsible for

the patient's admission to the hospital. All other diagnoses are secondary. If a patient enters the hospital because of sepsis of urinary origin but during the hospitalization develops pneumonia that extends the stay, the principal diagnosis from which the DRG is derived remains "sepsis of urinary origin." The only exception is the patient with several conditions, any of which would have independently required hospitalization and treatment. In this case, the coders have the option of selecting the principal diagnosis from among the possible principal diagnoses if each is treated with essentially equal effort.

7. Include relevant secondary diagnoses. Another complexity and frustration regarding the coding rules is that they are often highly specific and follow a logic of their own. For coding purposes, upper gastrointestinal bleeding is a diagnosis without comorbidity. However, adding the secondary diagnosis of "blood loss anemia" increases the case weight by adding a comorbidity, and documenting "esophageal hemorrhage" adds a major comorbidity, further increasing the case weight. Coders may not, by Medicare rules, prompt or lead physicians to the proper term. If the physician documents upper gastrointestinal bleed, anemia, and esophagitis, the coder cannot ask, "Was the esophagitis the cause of the anemia?"

Other Considerations

Although coders cannot use documentation from nurses and allied health professionals, their notes often provide clues to issues that the physician may have failed to document. For example, a patient with significant postoperative nausea and vomiting may be treated and followed carefully by the physicians and improve despite no physician documentation. The information contained in the nursing notes can generate a query to the physician to clarify the diagnosis that required treatment for significant nausea and vomiting.

Under the new guidelines, diagnoses present on admission must be distinguished from diagnoses occurring after admission. CMS is very concerned about reducing the incidence of preventable nosocomial events such as decubitus ulcers and catheter-associated infections. In an attempt to push hospitals to reduce or eliminate the incidence of these adverse events, CMS no longer reimburses certain diagnoses for the added cost of care when these events occur. If a patient

leaves the hospital with a catheter-associated urinary tract infection, CMS assumes that it was hospital-acquired unless it was clearly documented as present on admission (see Appendix A). It is likely that the list will grow over time; in fact, CMS is considering adding ventilator-associated pneumonia, *Staphylococcus aureus* septicemia, and deep venous thrombosis/pulmonary embolism in 2009. Thus, it is important to develop systematic methods to ensure that all diagnoses present on admission are captured and that diagnoses which developed during the hospitalization are acknowledged. A diagnosis present on admission but not recognized until after admission can be documented as present on admission. Another category will also be apparent occasionally in which it cannot be known whether a condition was present on admission or occurred following hospitalization.

PREPARING TO COMPLY WITH MS-DRG GUIDELINES

Information from Maryland hospitals that have piloted the MS-DRG methodology indicates that coders will be 25% to 50% less efficient (private communication), largely because of increased communication (queries) between coders and physicians to clarify medical documentation. Queries may be generated whenever the record lacks codable documentation or information is missing, conflicting, ambiguous, or illegible. Most hospitals will need to increase their coding staff and hire or develop educators to teach coders and physicians medical terminology. Many of these educators will need experience in both coding and medicine and will generally require at least an RN degree or the equivalent.^{5,6} Hiring experienced coders with a medical background is currently a challenge as many hospitals are responding to the new guidelines, and they are in high demand. Many hospitals will need to upgrade the skills of existing coders or medical personnel to fill these roles. Hospitals that invest in additional coders to train physicians in coding terminology may eventually regain efficiency in the coding process; however, it seems likely that some degree of additional clarification will always be needed.

Hospitals should develop educational programs, including didactic presentations that define the new MS-DRGs, outline the risks and benefits of the new rules, and provide examples of universal terminology. They should provide handouts, pocket guides, and electronic medical record

prompts with coding terminology and frequently asked questions. Specific physician feedback may occur on an individual, departmental, or DRG basis or on the basis of the *International Statistical Classification of Diseases and Related Health Problems*, 9th edition. Coding specialists need to be available to provide real-time chart review and answer specific physician inquiries on coding and documentation questions. Physician buy-in is essential and can be encouraged through careful education, administrative support, and physician champions.

INCENTIVE AND DISINCENTIVES: HOW TO MAXIMIZE COMPLIANCE AMONG PHYSICIANS AND HOSPITALS (AND WHY IT IS SO IMPORTANT)

The new coding rules affect only hospital reimbursement, so physicians get no direct benefit from ensuring that hospitals obtain the maximum appropriate reimbursement. However, physicians indirectly benefit when hospitals have strong profit margins, which allow for improved staffing levels, capital expenditures, additional services, programs, and growth. Any physician who has worked in institutions that operate in the red and in the black fully understands how important hospital revenue is to morale, efficiency, and work satisfaction.

The importance of properly evaluating quality of care cannot be overestimated. CMS, the Joint Commission on the Accreditation of Healthcare Organizations, and other oversight bodies have emphasized this through guidelines, legislation, and financial incentives.⁷ 'Pay for performance', 'value-based purchasing', and 'performance indicator data' are terms commonly understood by physicians. Hospitals and physicians benefit from improved quality measurements, which are affected by coding and documentation. Without appropriate coding and documentation, institutions that care for the very sickest patients cannot demonstrate their true severity of illness. Increases in morbidity, mortality, and length of stay will not correlate with the documented severity of illness, adversely skewing quality data and affecting hospitals' reputations. Hospitals that do not adequately account for the severity of the patients that they treat and accurately adjust their performance measures for severity will face increasingly difficult challenges to their financial stability and reputation in the future.⁸ The ability to

demonstrate favorable quality report cards^{2,3} represents an increasingly important incentive for hospitals.⁹ Finally, it is important to realize the multitude of functions supported by good documentation in the medical record. The record is also important for quality measurement, protection from liability, evaluation of resource utilization, tumor and other medical data registries, and other uses (see Appendix A).

CONCLUSION

The MS-DRG system has important implications for physicians and hospitals. The changes will allow CMS to understand more fully the severity of illness of hospitalized patients. It replaces a system that derived a DRG from a single principle diagnosis and in some cases a single comorbidity with one that reflects all conditions. Comorbidities and complications are designated as major, minor, or no complication. Because multiple parties use the medical record for many different functions, better documentation of specificity of severity of illness will affect hospitals in many ways. Importantly, one of these will be reimbursement. Hospitals that historically have had a higher level of severity will now see that reflected in their case mix and may actually see improved reimbursement. Another area that will be affected is quality measurement. If severity of illness is not appropriately documented and accounted for, hospitals could exhibit skewed outcomes of care. For example, if hospitals with sicker (on average) patients document a lower indicator of severity than the "true" severity of its patients, their mortality experience might appear to be abnormally high in comparison with other hospitals. This can damage reputations and thus affect many things such as patient referrals and utilization of services. This becomes particularly important in a competitive medical market and at a time when patients have increased access to hospital-specific data on quality of care.

The new guidelines also require medical documentation to capture diagnoses present on admission as opposed to conditions that arise during hospitalization. If not recorded as present on admission, selected conditions will be considered iatrogenic complications and will not receive additional reimbursement. CMS intends this as an incentive for hospitals to improve quality of care by developing safeguards against complications.

It is likely that hospitals will take different approaches to ensuring that medical record documentation skills are taught and adopted by physicians. As different approaches evolve, hopefully best practices will emerge that can be disseminated. These efforts should be taken to ensure appropriate documentation prospectively rather than heavy reliance on a retrospective review and query process, which can be inefficient and expensive, intrusive to physician workflow, and possibly subject to third-party criticism.

It is vital for hospital senior managers to gain physician input and involvement in both the design and implementation of the programs outlined in this article and to provide them with adequate resources and administrative support throughout the educational process. Ultimately, developing a program that enhances and sustains the medical record documentation skills of its medical staff is critical to the well-being of any hospital. Accepting the new changes and making the changes necessary to ensure success is certainly an additional burden on physicians; many, if not most, of whom likely feel overworked and overburdened by the many demands on their time. Although they may not derive personal benefit for changing their behaviors, physicians should nevertheless understand the importance of appropriate documentation for the purposes of quality assessment, reimbursement, and resource allocation.

APPENDIX A: SELECTED PENNSYLVANIA AND NATIONAL DATABASES USING MEDICAL RECORDS

Joint Commission on Accreditation of Healthcare Organizations (JCAHO)
 United Hospital Consortium (UHC)
 Pennsylvania Health Center Cost Containment Council (PHC4)
 United Network for Organ Sharing (UNOS)
 National Cancer Data Base (NCDB)
 National Database of Nursing Quality Indicators (NDNQI)
 National Association of Children's Hospitals and Related Institutions (NACHRI)
 Pennsylvania Trauma Systems Foundation (PTSF)
 American College of Cardiology (ACC)
 National Endoscopy Data Base (NEDB)
 National Surgery Quality Improvement Program (NSQIP)
 Society of Thoracic Surgery (STS)
 Uniform Data System for Medical Rehabilitation (UDSMR)

APPENDIX B: NOTES TAKEN DIRECTLY FROM THE MEDICAL RECORD

What the MDs Document (Doctorese)	What They Mean (Diagnosis/Universal Terminology)	Coding Result
↓plts, Tx 4U plts Na ⁺ = 117, fluid restrict	Thrombocytopenia Hyponatremia	Coders cannot decipher Abnormal laboratory test; cannot code
O ₂ sat 80, NC @ 4 l/min Alb = 2.4, diet consult, start suppl	Hypoxia Malnutrition	Coders cannot decipher Abnormal laboratory test; cannot code
IV NS 250/hr, 2U Tx, GI bleed	Hypovolemia, blood loss anemia	Coders cannot decipher
↓BP, fever, ΔMS, +UA	Sepsis of urinary origin	Urinary tract infection

APPENDIX C: HOSPITAL-ACQUIRED CONDITIONS OF FOCUS TO THE CENTERS FOR MEDICARE AND MEDICAID SERVICES FOR 2008

Serious preventable event: object left in surgery
 Serious preventable event: air embolism
 Serious preventable event: blood incompatibility
 Catheter-associated urinary tract infections
 Vascular catheter-associated infections
 Surgical site infection: mediastinitis after coronary artery bypass surgery
 Hospital-acquired injuries: fractures, dislocations, intracranial injury, crushing injury, burn, and other unspecified effects of external causes

APPENDIX D: STRATEGIES FOR SUCCESS WITH MEDICARE SEVERITY DIAGNOSIS-RELATED GROUPS

Educational initiatives

- Introductory didactic presentations
- Online tutorial: coding and documentation
- Periodic memos with coding tips ("Tip of the Month")
- Web site references on coding tips (comprehensive list)
- Posters, announcements, and branding

Physician support services

- Web site reference with FAQs
- Direct contact with coding specialists
- RN/coding specialist liaison
- Computerized medical record
- Staff feedback associated with query process
- Physician champions

Coding department changes

- Increased staffing
- RN/coding specialist: real-time chart reviews
- Physician coding specialist
- Standing Coding and Documentation Committee

APPENDIX E: SELECTED CODING TIPS FOR GENERAL MEDICINE

Disease/condition specific tips

- Gastrointestinal bleed with anemia does not mean that the patient is anemic from the hemorrhage: write "blood loss anemia (chronic or acute)."
- "Urosepsis" codes to urinary tract infection site NOS: write "sepsis with urinary origin."
- "CVA" or "stroke" does not mean infarction: write "CVA with infarction."

Common complications and comorbidities

- Cardiac: acute myocardial infarction, congestive heart failure, atrial flutter, paroxysmal supraventricular tachycardia, heart block, and second-degree heart block
- Gastrointestinal: melena, ascites, hepatitis, and hematemesis
- Genitourinary: urinary retention, hematuria, urinary tract infection, hydronephrosis, and renal failure
- Nutritional: dehydration, malnutrition, cachexia, and volume overload
- Gastrointestinal: peritonitis, perforation, bleeding esophageal varices, ascites, and ileus
- Genitourinary: acute renal failure, end-stage renal disease, urinary tract infection, and nephritic syndrome
- Nutritional: severe malnutrition, body mass index > 40, malnutrition NOS, and cachexia
- Pulmonary: respiratory failure, aspiration pneumonia, pneumothorax, atelectasis, and hemoptysis

General tips

- A culture must be linked to the site of infection: write "pseudomonas pneumonia."
- "Ambulatory dysfunction" and "deconditioning" lack the required specificity to ensure accurate coding; when possible, use "abnormal gait," "difficulty walking," "muscle weakness," and so forth.
- If the patient appears to be septic, positive blood cultures are not necessary to document sepsis.
- Discriminate between acute, chronic, and acute on chronic.
- If the problem is active, do not write "history of . . .," which implies that the condition no longer exists: write "PMH: chronic (diagnosis)."
- Be specific in documenting congestive heart failure (acute/chronic, systolic/diastolic failure, L/R).

Abbreviations: CVA, cerebrovascular accident; NOS, not otherwise specified; PMH, past medical history.

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