Principal Diagnosis Selection

Understand the factors to determine the appropriate codes

Inpatient coders often struggle with principal diagnosis selection. A clear understanding of the definition of principal diagnosis and the factors that play into principal diagnosis selection is extremely important, although often confusing. The definition of principal diagnosis is the diagnosis that is established after study to be the chief reason for the patient’s inpatient stay. The circumstances of the patient’s admission to the hospital always govern the selection of principal diagnosis (scope of care, diagnostic workup, and the therapy provided). However, the coding conventions/guidelines for ICD-9-CM or AHA Coding Clinic for ICD-9-CM may often provide guidance on principal diagnosis selection.

Patients are often admitted based on signs and symptoms present at the time of admission. The ICD-9-CM Official Coding Guidelines for Coding and Reporting state, “Codes for symptoms, signs, and ill-defined conditions from Chapter 16 [ICD-9-CM manual] are not to be used as a principal diagnosis when a related definitive diagnosis has been established.” It goes on to say that signs and symptoms that are considered an integral part of the definitive diagnosis are not separately reported. For example, a patient presents with a fever and is diagnosed as having a urinary tract infection (UTI) and treated with IV Levaquin®. Since fever is a common sign/symptom of a UTI, only the diagnosis code for the UTI would be reported.

Sometimes the physician may identify two or more diagnoses that meet the definition of principal diagnosis. The Official Coding Guidelines say that in this unusual event, either diagnosis can be sequenced as principal diagnosis unless the circumstances of the admission, the therapy provided, the ICD-9-CM tabular list, or the alphabetic index indicate otherwise. For example, a patient is admitted with shortness of breath and chest pain. The physician’s definitive diagnosis lists congestive heart failure and pneumonia as present on admission, and both are treated equally with IV meds. In this instance, either condition could be sequenced as the principal diagnosis.

When two or more conditions are interrelated, each potentially meeting the definition for principal diagnosis—such as diseases in the same chapter of
the ICD-9-CM manual or manifestations characteristically associated with a certain disease—either condition may be sequenced first, unless the circumstances of the admission, the therapy provided, the ICD-9-CM tabular list, or the alphabetic index indicate otherwise.

For example, a patient is admitted for gastroenteritis and dehydration both present on admission. The gastroenteritis is treated with po (“per os,” Latin for “by mouth”) meds and the dehydration is treated with IV meds. Since the gastroenteritis was treated orally and therefore could have been treated on an outpatient basis, the dehydration would be the principal diagnosis based on the therapy provided. If, however, the patient had infectious gastroenteritis that required IV medication to treat the condition, then the circumstances of the admission are different and both are treated equally.

When the diagnosis has not been established
There are several guidelines to identify the appropriate reporting in the event a definitive diagnosis has not yet been established. If the physician’s diagnostic statement identifies a symptom followed by contrasting/comparative diagnoses, the Official Coding Guidelines state that the symptom would be sequenced first (principal diagnosis) and the contrastings/comparative diagnoses would be listed as additional diagnoses. For example, if the physician’s diagnostic statement said chest pain, CAD (coronary artery disease) vs. pneumonia, then chest pain would be the principal diagnosis based on the coding guideline. However, if the physician simply lists two or more contrasting/comparative diagnoses, then either can be sequenced first. So if the physician simply wrote CAD vs. pneumonia, either could be sequenced as the principal diagnosis. The coder should use the circumstances of the admission, therapy provided, etc., to determine whether one condition outweighs the other.

If the diagnosis documented at the time of discharge is listed as “possible,” “probable,” “rule out,” or similar terms indicating uncertainty, the coder is to code the condition as if it has been established. This may be difficult for coders who feel uncomfortable diagnosing a patient with something they may not have. However, coders must consider that they are trying to justify the “reason” the patient was admitted to the hospital. A patient is not typically admitted simply because he or she has a cough, but if it is possible that the patient may have pneumonia—which would require treatment with IV meds—that would warrant an inpatient admission.

There are some exceptions to this rule, however. The ICD-9 chapter-specific guidelines say only to code practitioner-confirmed cases of HIV and avian or H1N1 influenza. Therefore, if the provider writes possible HIV, avian, or H1N1, coders must code for the signs/symptoms that are present.

Unforeseen circumstances and complications
If a patient is admitted to the hospital with the intention of a therapeutic procedure or treatment plan, but due to unforeseen circumstances it cannot
The principal diagnosis is the condition which, after study, was chiefly responsible for the admission to the hospital, even if the treatment was not carried out.

For example, a patient is admitted for a prostatectomy due to benign prostatic hypertrophy (BPH). However, shortly after admission the patient develops palpitations and the procedure is cancelled due to contraindications. The patient is evaluated and treated for the cause of the palpitations. The principal diagnosis would still be the BPH. An additional code may be assigned from the V64.x series to identify the reason the procedure was not carried out (V64.1 contraindication, V64.2 patient’s decision, or V64.3 for other reason).

When a patient is admitted for treatment of a complication resulting from surgery or other medical care, the complication code is sequenced as the principal diagnosis. If the complication is classified to the 996–999 series, the code lacks necessary specificity and therefore an additional code should be reported. For example, if a patient is admitted for a postoperative seroma, and per the documentation the causative organism is identified as *Staphylococcus aureus*, the principal diagnosis would be complication of the postoperative seroma with an additional diagnosis to identify the causative organism.

On some occasions a patient may develop an unrelated condition after admission requiring surgery. If this occurs, the unrelated condition requiring surgery fits the Uniform Hospital Discharge Data Set definition of additional diagnoses (treated, evaluated, diagnostic study, affects length of stay, or increases nursing care/monitoring), and the reason for the admission is still the principal diagnosis. For example, a patient is admitted for dehydration due to hypermesis from gastroenteritis and receives IV fluids and meds. On day two of the admission, the patient begins to experience dysrhythmia, pulmonary edema, tachycardia, and hypoxia. The physician determines that the patient is in congestive heart failure and schedules him/her for a pacemaker. The reason for the admission is still the dehydration. The congestive heart failure is coded as an additional diagnosis.

Sometimes a patient is admitted following outpatient procedures or surgeries. In this case, the condition that prompted the admission should be sequenced first. So if a patient is admitted for controlled postoperative bleeding after an outpatient biopsy of the bladder for bladder cancer, the postoperative bleeding is the reason for the admission. If no complication or other specific condition is identified and the patient is admitted for routine postoperative care, then the reason for the surgery will serve as the principal diagnosis.

For example, a patient is seen for arthroscopic knee surgery and is then admitted postoperatively and receives IV fluids and pain medications. The physician identifies no other reason for the admission other than the reason for the surgery: patellar instability status post lateral release. Since no other specific condition or complication is identified, the reason for admission is
The patellar instability. While this may not qualify for an inpatient admission, the coder or clinical documentation specialist should review the record and query based on pain management and IV meds as to the reason for treatment. Most likely, it isn’t the patellar instability.

If the reason for the inpatient admission is another condition unrelated to the surgery, coders should assign the unrelated condition as the principal diagnosis. For instance, if a patient undergoes carpal tunnel release to correct carpal tunnel syndrome as an outpatient procedure and shortly after the patient is admitted and treated for angina, then the reason for the admission was the angina.

Looking toward the future with ICD-10 and principal diagnosis selection

Some interesting changes are occurring with the implementation of ICD-10-CM that are going to affect principal diagnosis selection. Although many say it is too early to start working with ICD-10, as an AHIMA-certified ICD-10 trainer I feel it is extremely important to start identifying some differences between ICD-9 and ICD-10—especially when there may be payment implications based on coding guideline changes or code changes. It is important to start working with physicians now to address documentation issues to avoid a backlog of issues once ICD-10-CM is in effect.

An example of impending changes applies to anemia in neoplastic disease. Currently in ICD-9, we are to code the complication as the principal diagnosis and the neoplasm as an additional diagnosis. In ICD-10, there has been a guideline change: If the reason for the admission/encounter is for management of anemia associated with the malignancy, and the treatment is only for anemia, the appropriate code for the malignancy is sequenced as the principal or first-listed diagnosis, followed by code D63.0, anemia in neoplastic disease. This change in principal diagnosis selection will have payment implications based on the MS-DRG system. Now, based on ICD-9 guidelines, it leads to an anemia DRG. But with the implementation of ICD-10 guidelines, it will lead us to a neoplasm DRG, which could be significantly higher weighted in some instances. Currently, MS-DRG 811, anemia w/MCC, is weighted at 1.254 and MS-DRG 812, anemia without MCC, at 0.7957. If we use breast malignancy as an example, MS-DRG 597, breast malignancy w/ MCC, is weighted at 1.5596; MS-DRG 598, breast malignancy w/ CC, is weighted at 1.0611; and MS-DRG 599, breast malignancy without MCC/CC, is weighted at 0.6265. Therefore, the change could result in an increase in reimbursement based on the coding guideline change.

There was an additional change regarding anemia in 2011. If the reason for the admission/encounter is for anemia associated with the adverse effect of radiotherapy, the anemia code should be sequenced first. It should then be followed by the appropriate neoplasm code and code Y82.4, radiological procedure and radiotherapy as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the...
procedure. This guideline seems to follow more closely the current ICD-9 coding guidelines, in which the complication is coded as the principal diagnosis, followed by the neoplasm. Generally, most of the guidelines for neoplasms remain the same between ICD-9 and ICD-10 when it comes to principal diagnosis selection.

Adverse effects is another area where a similar change occurs in coding guidelines that could have payment implications. Currently, based on the coding guidelines and the codes associated with adverse effects of drugs, we code first the reaction (e.g., nausea/vomiting, rash, hypokalemia, respiratory failure), followed by the E code from the therapeutic use column on the table of drugs and chemicals. With the changes that occur in ICD-10 in the table of drugs and chemicals, and also with coding guideline changes, we will now code the appropriate code for the adverse effect from the table of drugs and chemicals followed by the reaction(s), thus changing the principal diagnosis. Now, based on ICD-10 guidelines, our MS-DRGs may end up all over the place based on the reaction code as principal. For example, if a patient develops a duodenal ulcer with hemorrhage because of an adverse effect of medication, the MS-DRG is either 377 (w/ MCC) with a relative weight of 1.7541, 378 (w/ CC) with a relative weight of 1.0274, or 379 (without MCC/CC) with a relative weight of 0.7146. With the implementation of ICD-10 coding guidelines, the MS-DRG will either be 915 (allergic reactions w/ MCC) with a relative weight of 1.4252 or 916 (allergic reactions without MCC) with a relative weight of 0.4867. This could result in a significant decrease in reimbursement based on the coding guideline change.

Diabetes is another area where we see a significant change in coding, as the manual has broken out diabetes codes even further and added a “code first underlying cause” reference to the secondary diabetes category codes. Secondary diabetes is always caused by another condition or event; therefore, the underlying cause (e.g., cystic fibrosis) would be the principal or first-listed diagnosis, followed by code(s) for the secondary diabetes and its manifestations.

Now, based on ICD-9 coding guidelines, the manual takes us to MS-DRG 637 (diabetes w/ MCC) with a relative weight of 1.4462, 638 (diabetes w/ CC) with a relative weight of 0.8306, or 639 (diabetes without MCC/CC) with a relative weight of 0.5544. With ICD-10 coding guideline changes it will take us to either MS-DRG 640 (nutritional and miscellaneous metabolic disorders w/ MCC) with a relative weight of 1.1400 or 641 (without MCC) with a relative weight of 0.6916. If the underlying cause is an adverse effect of a medication, it will result in either MS-DRG 915 (allergic reactions w/ MCC) with a relative weight of 1.4252 or 916 (allergic reactions without MCC) with a relative weight of 0.4867. If the underlying cause is a poisoning, it will result in either MS-DRG 917 (poisoning w/ MCC) with a relative weight of 1.4868 or 918 (poisoning without MCC) with a relative weight of 0.6269. Depending on the underlying cause, this may or may not have payment implications for coders.
Coders have a difficult task when it comes to assigning principal diagnosis, especially because in most instances they are not clinicians and therefore must make decisions based on their pathophysiology training. All coders have to start somewhere, and the clinical knowledge comes with training and experience. We would all like a hard-and-fast rule that says XYZ diagnosis will always be the principal diagnosis, and we often look to AHA’s Coding Clinic to give us advice on the subject. Yet we must remember that in some instances there are coding guidelines that take precedence in specific chapter areas like poisonings, HIV, pregnancy, and newborns, which then dictate the principal diagnosis. However, in other areas it is based on the circumstances of the admission and coders must ask themselves, “Would we put a patient in the hospital for this?” to help in their decision-making.

As previously stated, principal diagnosis selection can present a significant challenge for inpatient coders. But if the coder has a proper understanding of the definition of the term and is able to recognize and apply the factors that play into the selection of a diagnosis, then principal diagnosis selection should become a natural part of the everyday routine.

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