

Michael on screen:

Michael speaking:

My name is Michael Pine. I'm an academic cardiologist who, for the past two decades, has been developing and applying new methods of measuring and improving clinical quality. Today I'll be sharing some information with you about what we, as physicians, need to know about new present-on-admission diagnostic coding requirements.

In general, ICD-9-CM coding of hospital claims is a complex process that is best left to coding professionals. On the other hand, because diagnostic codes on hospital claims are being used more and more to assess our clinical performance, it's important for us, as physicians, to understand what we must do to make sure that coders get it right.

Slide appears on screen: New Information Derived from POA Coding

Michael speaking:

In the past, it often was difficult to determine whether coded secondary diagnoses described comorbid conditions that were present when the patient was admitted or whether they described complications that occurred during the course of hospitalization.

Newly mandated present-on-admission coding makes it possible to distinguish between conditions that actually were present on admission and increased patients' intrinsic risks of poor clinical outcomes and higher hospital costs and inpatient complications that might be the result of suboptimal hospital care.

Michael on screen:

Michael speaking:

As physicians, we have a large stake in the accuracy of present-on-admission coding.

Next slide on screen: Physicians' Stake in Accurate POA Coding

Michael speaking:

Because claims data are increasingly being used not only to assess our clinical performance but also to direct pay-for performance programs and to guide time-consuming, expensive efforts to improve clinical quality, we must ensure that these data are complete and correct. If we don't do this, we may find that improper present-on-admission coding results in our patients having higher-than-average risk-adjusted rates of hospital-acquired complications because their risks of adverse outcomes are underestimated or because conditions that were present on admission are incorrectly coded as inpatient complications. Errors in coding may directly affect public reports of your clinical quality and payments to your practice under pay-for-performance arrangements. Finally, improperly coded hospital-acquired complications may result in substantial financial penalties imposed on your hospital by inspectors general and other monitors of coding accuracy.

Michael on screen:

Michael speaking:

So let's begin with three general guidelines for present-on-admission coding.

Next slide is on screen: Guidelines for POA Coding

Michael speaking:

First, with rare exceptions, a present-on-admission modifier must be assigned to every principal and every secondary diagnosis code on a hospital claim.

Second, diagnoses should be coded as having been present on admission when they were present at or before the time the order for inpatient admission was written.

And finally, it is very important for physicians to remember that all present-on-admission codes must be supported by documentation in the medical record by a qualified clinician or provider of medical care. Coders cannot use documented test results as the basis for coding decisions, no matter how obvious the relationship is between a test result and a clinical diagnosis. A sodium of 120 cannot be coded as hyponatremia unless a clinician documents this diagnosis in a patient's medical record.

Michael on screen:

Michael speaking:

There are five valid present-on-admission codes.

Next slide is on screen: Valid POA Codes

Michael speaking:

The first is either a blank space, the number “1,” or the letter “E.” This designation is reserved for diagnoses such as “late effects of cerebrovascular disease” that always are present on admission and therefore are exempt from present-on-admission coding. These exempt diagnoses are drawn from a relatively short list which every professional coder will know.

The letter “Y” indicates that the diagnosis was present at the time the order to admit a patient was written.

The letter “N” indicates that the diagnosis was not present at the time the order to admit a patient was written. In other words, the letter “N” indicates that a diagnosis is a hospital-acquired complication.

There are two additional codes that are used when the coder is uncertain whether a diagnosis was or was not present on admission. The first is the letter “W,” which is used when we physicians document our inability to determine whether or not a diagnosis was present on admission or whether it occurred during hospitalization. For example, we may be unable to determine whether a patient admitted with acute pyelonephritis had gram negative septicemia when she was admitted or whether she developed it shortly after admission. This situation will be relatively rare.

The second is the letter “U,” which is used when qualified clinicians have not supplied sufficient documentation for the professional coder to assign the proper present-on-admission modifier. This code is used only if a coder is unable to obtain enough information from managing physicians to determine whether a diagnosis should be modified with a “Y,” an “N,” or a “W.” Good documentation by physicians in medical records should virtually eliminate the use of “U” codes. Frequent use of this code probably will precipitate audits of

medical records and may result in serious adverse consequences for hospitals and practitioners.

Michael on screen:

Michael speaking:

Chronic conditions such as diabetes mellitus, atherosclerotic cardiovascular disease, and chronic obstructive pulmonary disease always should be coded as present on admission regardless of when they are diagnosed.

Next slide on screen: Coding Chronic Conditions

Michael speaking:

However, it is important for us to remember that coders are limited by what we document in the medical record, and they may fail to recognize chronic conditions when they are diagnosed or first documented after our admission notes have been completed. Therefore, when a condition that we know is chronic is first documented after the admission work-up, we should make sure that our documentation includes a notation that the condition actually was present on admission.

Michael on screen:

Michael speaking:

Coding acute conditions is somewhat more complex.

Next slide on screen: Coding Acute Conditions (1)

Michael speaking:

A diagnosis of an acute condition is coded as present on admission if it is documented as having been present when the patient was admitted or shortly prior to admission, for instance, in an emergency room note. An acute diagnosis also is coded as present on admission if it is documented as having been suspected on admission and is included among a patient's discharge diagnoses. When an acute diagnosis is made during hospitalization, it is coded as present on admission if its presence on admission has been documented explicitly in the medical record.

Next slide on screen: Coding Acute Conditions (2)

Michael speaking:

Acute exacerbations of chronic conditions are coded as present on admission only when the chronic condition and the exacerbation both are documented as having been present on admission.

When we explicitly document an acute diagnosis or exacerbation during hospitalization but have not documented it in our admission or preadmission notes, it is very useful to reference explicitly symptoms and clinical findings on admission that are related directly to the diagnosis or exacerbation.

Next slide on screen: Coding Uncertain Diagnoses

Michael speaking:

Diagnoses documented on discharge as possible, probable, suspected, rule out, pending, or threatened all are coded as present on admission if these diagnoses are documented as having been suspected on admission or if symptoms or clinical findings related directly to these diagnoses are documented as having been present on admission. However, don't expect coders to associate symptoms and signs with the conditions we diagnose. We must make those associations explicit in medical records or diagnoses that were present on admission may end up being coded as hospital-acquired.

Next slide on screen: Indeterminate Timing of Diagnoses

Michael speaking:

When a qualified clinician documents that he or she can't determine whether or not a diagnosis actually was present on admission, coders will use the letter "W" to designate that the time of occurrence of that diagnosis is indeterminate.

When the coder cannot determine the proper present-on-admission code for a diagnosis from the medical record, it is the coder's responsibility to attempt to obtain information needed to assign a code from qualified practitioners. Coders will use the letter "U" to classify a diagnosis as unknown only when they can't obtain this information and therefore are unable to use a more appropriate present-on-admission code.

Michael on screen:

Michael speaking:

Unlike medical and surgical codes, obstetrical codes are governed by somewhat different rules.

Next slide on screen: Coding Diagnoses Related to Pregnancy

Michael speaking:

For pregnancy-related diagnoses, a present-on-admission assignment is determined by the relation of each pregnancy-related condition to the time of admission. Pregnancy-related codes never are affected by if or when the patient delivered. Instead, a present-on-admission modifier for a pregnancy-related code is selected based on the occurrence of conditions other than delivery that are covered by the obstetrical code. An obstetrical code will be coded as present on admission if, and only if, all conditions covered by the code (except for the delivery itself) are present on admission.

Michael on screen:

Michael speaking:

There are special coding requirements for newborns and for accidents.

Next slide on screen: Coding Diagnoses for Newborns and Accidents

Michael speaking:

For newborns, admission occurs at the time of birth. Therefore, congenital conditions and anomalies, all in utero conditions, and all complications that occur during delivery are coded as having been present on admission.

Present-on-admission modifiers associated with special E codes that describe external causes of injury are based on the relationship of the time of injury to the time of admission. Only when an injury occurs prior to admission will an E code be designated as having been present on admission. Accidents that occur during hospitalizations will be coded as hospital-acquired complications.

Michael on screen:

Michael speaking:

These principles are illustrated in the following four case studies. In the first case study, a patient with no prior history of heart disease is admitted after developing congestive heart failure and chest pain during recovery after outpatient surgery.

Next slide on screen: Case Study #1 - Clinical Presentation

Michael speaking:

Admission diagnoses are congestive heart failure and rule out acute myocardial ischemia. The patient's admission EKG reveals atrial fibrillation with a rapid ventricular response, but atrial fibrillation is not documented in the admission note. On the second hospital day, the patient's physician documents successful treatment of atrial fibrillation and congestive heart failure. The work-

up for myocardial ischemia is negative. The patient is discharged with diagnoses of congestive heart failure and atrial fibrillation.

Next slide on screen: Case Study #1 – POA Coding

Michael speaking:

Final diagnosis codes list congestive heart failure, present on admission, and atrial fibrillation, hospital-acquired. This clearly is not correct. Atrial fibrillation obviously was present on admission, but despite the positive EKG, the diagnosis wasn't documented in the medical record by a qualified practitioner until the second hospital day. Therefore the coder was forced to code this diagnosis as hospital-acquired. If the practitioner had indicated that atrial fibrillation was present on the admission EKG when the diagnosis was first documented, atrial fibrillation would have been properly coded as having been present on admission and not classified as a hospital-acquired complication.

Michael on screen:

In the second case study, a patient is admitted for a diagnostic work-up of a productive cough with wheezing and difficulty breathing.

Next slide on screen: Coding Study #2 – Clinical Presentation

Michael speaking:

Admission diagnoses are rule out obstructive pulmonary disease and rule out congestive heart failure. On the second hospital day, a progress note documents the discovery of a malignant neoplasm of the lung during bronchoscopy. On the third hospital day, a progress note documents a positive sputum culture and the initiation of antibiotic therapy. The patient is discharged with diagnoses of obstructive chronic bronchitis with acute exacerbation and malignant neoplasm of the lower lobe of the lung.

Next slide on screen: Coding Study #2 – POA Coding

Michael speaking:

Final coded diagnoses include lung cancer and chronic bronchitis with an acute exacerbation. Both are listed as hospital-acquired. Unfortunately, neither diagnosis was documented well enough to ensure proper present-on-admission coding. Both could have been coded as present on admission because cancer is a chronic diagnosis and the exacerbation of chronic bronchitis clearly was present on admission. Given the symptoms which were documented in the medical record, correct present-on-admission coding could have been ensured if progress notes or discharge diagnoses had documented lung cancer, present on admission, and had noted that the exacerbation of the chronic bronchitis was manifested by cough, wheezing, and difficulty breathing on admission.

Michael on screen:

Michael speaking:

In the third case study, a diabetic patient who is well controlled on oral hypoglycemic agents is admitted for treatment of a community-acquired pneumonia and is found to have a blood sugar of 322.

Next slide on screen: Coding Study #3 – Clinical Presentation

Michael speaking:

A progress note on the second hospital day documents treatment of uncontrolled hyperglycemia with insulin. A progress note on the third hospital day documents sepsis with two blood cultures drawn on the second hospital day both positive for streptococci. The patient is treated successfully with antibiotics and prn. Insulin and is discharged with diagnoses of streptococcal pneumonia, streptococcal sepsis, and uncontrolled diabetes mellitus.

Next slide on screen: “Coding Study #3 – POA Coding” Michael goes through slide

Michael speaking:

Final coded diagnoses include streptococcal pneumonia, present on admission, streptococcal septicemia, hospital-acquired, and uncontrolled diabetes, hospital-acquired.

In this case, inaccurate coding results from the patient’s physician’s failure to document clearly whether the streptococcal septicemia occurred prior to admission or after admission. Because the patient’s physician actually is uncertain whether sepsis was present on admission, she should have documented this uncertainty. Failure to do so forced the coder to infer that sepsis was hospital-acquired because it first was documented on the third

hospital day without any reference to the fact that this condition might actually have been present when the patient was admitted.

On the other hand, the high admission blood glucose proves that the patient's diabetes was out-of-control when the patient was admitted. However, a high blood glucose level on admission is not sufficient, in and of itself, to permit a coder to conclude that the patient's diabetes was out-of-control when the patient was admitted.

These coding errors would have been avoided if the patient's physician had indicated in her progress notes or her discharge diagnoses that the onset of sepsis was indeterminate and that the patient had uncontrolled diabetes with an elevated blood glucose on admission.

Michael on screen:

Michael speaking:

The fourth case study differs somewhat from the first three. In this study, a patient with an old subendocardial myocardial infarction is admitted with an impending acute myocardial infarction.

Next slide on screen: Coding Study #4 – Clinical Presentation

Michael speaking:

An emergency coronary angioplasty is performed. On the fourth hospital day, the patient develops acute shortness of breath and pleuritic chest pain. A lung scan is suggestive of an acute pulmonary embolus and the patient is anticoagulated. Ten days later, the patient is discharged with diagnoses of an

acute anterolateral wall myocardial infarction and an old subendocardial myocardial infarction.

Next slide on screen: Coding Study #4 – POA Coding

Michael Speaking:

Final coded diagnoses are acute anterolateral wall myocardial infarction and old myocardial infarction.

The problem in this case is that the patient probably also had a pulmonary embolus while in the hospital, but there is insufficient documentation to code the embolus and indicate that it was hospital-acquired. On the other hand, a prolonged risk-adjusted hospital length of stay makes it unlikely that this patients' hospital course was uncomplicated. If the clinician caring for this patient wishes to avoid a data quality audit, his progress notes or his discharge diagnoses should include a possible or suspected pulmonary embolus, hospital-acquired.

Michael on screen:

Michael speaking:

These examples illustrate some issues that must be addressed to ensure accurate coding of hospital-acquired complications.

Next slide on screen: Coding Hospital-Acquired Complications

Michael speaking:

Expertise and teamwork between coders and clinicians are essential for accurate coding. However, even when this teamwork and expertise are present, it may be difficult to achieve consistency among hospital coding departments that do not work together routinely. In addition, not coding all complications may appear to be potentially beneficial because, unlike coded comorbidities which make risk-adjusted clinical outcomes appear better, coded complications make risk-adjusted clinical outcomes appear worse.

To detect coding errors, external agencies can perform rigorous chart reviews, but these reviews are inefficient and costly. On the other hand, well-designed screens applied to large data sets can detect many coding errors very effectively and very efficiently.

Michael on screen:

Michael speaking:

To demonstrate how these screens may be used to assess the accuracy of present-on-admission coding, my research team applied a sophisticated set of 12 screens published in Perspectives in Health Information Management to discharge data from hospitals in New York State.

Next slide on screen: Screens for Correct Coding of Complications

Michael speaking:

These screens were applied to three types of admissions: admissions for high-risk medical conditions, admissions for elective surgical procedures, and

admissions for childbirth. Topics examined by these screens included: chronic conditions with and without exacerbations, where screens concentrate the rate of coding chronic conditions as being present on admission and on changes in these rates when acute exacerbations are incorporated into chronic disease codes; conditions that frequently are hospital-acquired examining relative rates at which they are coded as hospital-acquired; obstetrical conditions examining the consistency of coding diagnoses and designating them as present on admission or hospital-acquired complications; medical conditions which have higher inpatient death rates when they are hospital-acquired than when they are present on admission examining relative mortality rates for complications and comorbidities; and long lengths of stay in patients without coded complications where long lengths of stay are suggestive that actual complications occurred but were not coded.

Michael on screen:

Michael speaking:

The following three slides illustrate the use of control charts to identify hospitals that systematically fail to code hospital-acquired complications properly. Control charts are an established method of statistical process control that is widely used to identify problematic events.

Next slide on screen: Risk Adjusted Post-Operative Lengths of Stay: All Live Discharges

Michael speaking:

The first slide shows a control chart that contains risk-adjusted lengths of stay of patients hospitalized for a surgical procedure. The black diamonds are cases whose risk-adjusted lengths of stay fall below a three sigma upper bound. The red squares are cases with prolonged risk-adjusted lengths of stay that were coded as having had at least one hospital-acquired complication. The blue squares are cases with prolonged risk-adjusted hospital stays that did not have a secondary diagnosis coded as a hospital-acquired complication.

Next slide on screen: Risk Adjusted Post-Operative Lengths of Stay: Live Discharges without Reported Complications with Good Coding

Michael speaking:

The following slide shows a similar control chart created using all live discharges that did not have at least one secondary diagnosis coded as a hospital-acquired complication. In this illustration, there are only six cases with prolonged risk-adjusted lengths of stay and only one of the six has a risk-adjusted length of stay that is substantially longer than the upper bound. These two figures are consistent with good present-on-admission coding.

Next slide on screen: Risk Adjusted Post-Operative Lengths of Stay: Live Discharges without Reported Complications with Poor Coding

Michael speaking:

The next slide shows a control chart from a hospital in which present-on-admission coding is suboptimal. Despite the fact that only cases without any coded hospital-acquired complications are included in the analysis, this figure

differs from the previous illustration in that many more cases have lengths of stay that exceed the three sigma upper bound.

Michael on screen:

When we applied these screens to data from hospitals in New York State that had been coding present-on-admission for many years, we found a wide range of scores, indicating that quality of coding differs greatly among these hospitals.

Next slide on screen: Distribution of Hospital POA Coding Scores

Michael speaking:

More than one in ten of the hospitals we evaluated had more than ten percent of their secondary diagnoses coded as unknown. This indicates that coders often were unable to determine from documentation in the medical records whether or not conditions were present on admission or were hospital-acquired. Of the 165 hospitals with less than ten percent of their diagnoses coded as unknown, about 40 percent scored better than 90 percent on these screens. About two-thirds of hospitals scored better than 80 percent. However, one-third of hospitals clearly had problems with their present-on-admission coding. If coding at these hospitals does not improve, they are at risk of being subjected to audits and to financial penalties by external monitoring agencies.

Michael on screen:

Michael speaking:

In sum, three important points can be gleaned from this presentation.

Next slide on screen: “The Bottom Line” Michael goes through slide

Michael speaking:

First, coders are limited in their discretionary authority and are very dependent upon what qualifying clinicians document in medical records. Second, improper coding of present-on-admission modifiers can result in inaccurate assessments of our clinical performance with serious consequences for physicians. And last, the good news is that simple modifications in recording diagnoses and clinical findings in medical records can improve the accuracy of diagnostic coding substantially and can make claims records a valid indicator of the quality of medicine practiced at our hospitals.

Michael on screen:

Michael speaking:

I hope this presentation has proven interesting and useful and that you will be able to work with your coders to ensure the accuracy of present-on-admission coding. If you do this, analyses of clinical performance based on claims data will be clear and accurate and will credit you and your hospitals with the excellent work you all are doing.

Thank you for your time and attention.