# Neurosurgery Coding Alert

## ICD-10 Coding: Work Out Combination, Complication Dxs with These 2 Examples

**Remember to check ICD-10-CM guidelines, even for obscure cases.**

Diagnosis: Arteriosclerotic-induced ruptured cerebral aneurysm of the right posterior communicating artery.

At first glance, this diagnosis is a handful. The first hang-up comes with the arteriosclerosis descriptor. Your instincts may initially direct you to code the arteriosclerosis as the underlying condition; however, there's two separate reasons why you should ultimately take a different approach to this diagnosis.

The first reason has to do with how this condition manifests itself. "If you have a firm grasp on how arteriosclerosis affects the cerebral arteries, you know that this condition is one that progresses over the span of many years," says **Lindsay Della Vella, COC**, medical coding auditor at Precision Healthcare Management in Media, Pennsylvania. "With that understanding, you can conclude that while the arteriosclerosis ultimately leads to the ruptured cerebral aneurysm, it is not an acute condition in itself," Della Vella explains. In cases such as this, where no combination code exists, you should code the acute condition first, followed by the chronic disease.

While there are no guidelines in the ICD-10 definitively discussing this issue, there are guidelines advising coders on what diagnosis to apply for surgical procedures.

**Differentiate Between Inpatient, Outpatient Surgical Dx Guidelines**

Consider the following rules for outpatient surgery coding in the ICD-10 guidelines:

- "When a patient presents for outpatient surgery (same-day surgery), code the reason for the surgery as the first-listed diagnosis (reason for the encounter), even if the surgery is not performed due to a contraindication."

Now, take a look at these guidelines for "present on admission" coding:

- "Present on admission is defined as present at the time the order for inpatient admission occurs - conditions that develop during an outpatient encounter, including emergency department (ED), observation, or outpatient surgery, are considered as present on admission."

Since the patient in question would most certainly be admitted as an inpatient before surgery, it's safe to follow by the "present on admission" guidelines when determining the correct ICD-10 code. However, since those guidelines are somewhat vague, you should consider the outpatient surgical guidelines as a reference for coding inpatient surgeries as well.

Specifically, the "reason for surgery" will be the same diagnosis you apply as your "present on admission" diagnosis code. In this case, the underlying reason for the surgery is the ruptured cerebral aneurysm, not the arteriosclerosis.

**Check for Combination Code First**

The second reason not to code arteriosclerosis as the primary diagnosis is a much simpler one - a combination code already exists. When searching under Aneurysm ⇒ brain, you'll find your first option is to select arteriosclerotic ⇒ ruptured ⇒ see Hemorrhage, intracranial, subarachnoid.

Under subarachnoid (nontraumatic) (from), you will select intracranial (cerebral) ⇒ posterior communicating ⇒ I60.31

(Nontraumatic subarachnoid hemorrhage from right posterior communicating artery). Despite the fact that this does not specifically reference arteriosclerosis, since you utilized the keyword in reaching the final diagnosis, you may consider this a combination code.

**Know Your Postop Complication Dx Guidelines**

Diagnosis: Patient is admitted for pseudoarthrosis of C1-C2 and spinal fluid leak at C2 following posterior C1 laminectomy and cervical fusion for C1-C2 instability and myelopathy.

Here, you are dealing with two distinct complications following a posterior C1 laminectomy and fusion procedure. There are two factors you must place under consideration: The first is whether or not you should apply the complications as the primary diagnoses over the reason for the laminectomy and fusion procedure. The second consideration has to do with identifying the primary diagnosis if you are to code the complications first.

In this example, you will be deciding between the pseudoarthrosis and the spinal fluid leak for the placement of primary diagnosis. In fact, since the laminectomy and fusion procedure had already been performed, you will not be applying an instability/myelopathy diagnosis at all. Your next step is to determine which of these two diagnoses you should code as the primary diagnosis. Consider the following ICD-10-CM guidelines:

- "In the unusual instance when two or more diagnoses equally meet the criteria for principal diagnosis as determined by the circumstances of admission, diagnostic workup and/or therapy provided, and the Alphabetic Index, Tabular List, or another coding guidelines does not provide sequencing direction, any one of the diagnoses may be sequenced first."

"Since both diagnoses qualify as complication diagnosis codes, you may technically opt for either diagnosis as the first-listed diagnosis," explains **Barry Rosenberg, MD**, chief of radiology at United Memorial Medical Center in Batavia, New York. "If one of the two is clearly more severely impacting the patient based on the documentation, apply that respective code as the primary," Rosenberg details.

Under Pseudarthrosis, pseudoarthrosis (bone) in the ICD-10 index, you will have the option to pursue "see Nonunion, fracture" or select a diagnosis based on the original term. Pseudoarthrosis also applies to improper fracture healing that results in nonunion; however, this would not be applicable to the example diagnosis. Under Pseudarthrosis, pseudoarthrosis (bone), you will select joint, following fusion or arthrodesis, which leads you to your final diagnosis code M96.0 (Pseudarthrosis after fusion or arthrodesis).

As for the cerebrospinal fluid leak, you should not consider either option under Leak, leakage à cerebrospinal fluid. G96.0 (Cerebrospinal fluid leak) is not indicative of a surgical complication and G97.0 (Cerebrospinal fluid leak from spinal puncture) is a complication from a lumbar spinal puncture. Therefore, to report a C2 cerebrospinal fluid leak following laminectomy and fusion, you should resort to using code G97.82 (Other postprocedural complications and disorders of nervous system).