Don’t Let Sprain and Strain Drain Your Brain

Reporting sprains and strains using ICD-10

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Sprains and strains are common injuries in orthopaedic patients. Knowing how to describe these injuries with the correct ICD-10-CM code will be very important when October 2015 rolls around.

In ICD-9, sprain and strain codes are found in the same category range (840–848). The range includes the following injuries to the joint capsule, ligament, muscle, or tendon:

- avulsion
- laceration
- sprain
- hemarthrosis (bleeding into joint space)
- rupture
- strain
- tear

ICD-10 separates sprain and strain into two separate code ranges and makes the description specific to the injured structure.

- A sprain is an injury to a ligament/joint.
- A strain is an injury to the tendon/muscle unit.

Sprains
Sprains are graded by severity; the following descriptions are commonly accepted:

- Grade 1—slight stretching with some damage to the fibers of the ligament
- Grade 2—partial tear of the ligament with some laxity
Grade 3—complete tear of the ligament with gross instability

The sprain category in ICD-10 is S@3., in which the @ represents the anatomic location of the ligament or joint sprain, as follows:

- neck
- thoracic spine
- lumbar spine and pelvis
- shoulder
- elbow
- wrist, hand, fingers
- hip
- knee
- ankle, toes, foot

The types of injuries ICD-10 includes in its sprain range are similar to those in ICD-9 and are listed in Table 1. However, strains or any other injury to a muscle/tendon unit are not included. The ICD-10 book also instructs the provider to report any associated open wound with a separate code.

For example, the ICD-10 code for active treatment of an acute tear of the anterior cruciate ligament (ACL) of the right knee is S83.511A. (For an in-depth look at the use of the 7th alpha character in the injury chapter to describe phase of treatment, see “When “7” Is Not a Lucky Number,” AAOS Now, November 2014.) The “S” indicates this is an acute problem from the injury chapter. The “8” identifies the knee as the location of the injury, and the “3” indicates the type of injury is a sprain. This same code would be used regardless of whether the diagnosis was a stretching of the ACL or a complete tear of the ACL because the diagnosis code does not describe the severity of the sprain in either ICD-9 or ICD-10.

However, ICD-10 is much more specific than ICD-9 in describing traumatic rupture of ligament(s) at the elbow, wrist, hand, and fingers. In ICD-9, these traumatic ruptures of ligaments are reported as sprains. Table 2 shows the specific traumatic ligament ruptures that are categorized separately in ICD-10.

**Strains**
A strain is an injury of the tendon/muscle unit (think sTrain-Tendon) and usually occurs at a limb location. The category S@6. describes a strain, in which the @ represents the anatomic location of the strain. However, these are defined slightly differently than for a sprain, as follows:

1 = neck
2 = thoracic spine (S29.)
3 = lumbar spine and pelvis (S39.)
4 = shoulder/upper arm
5 = forearm
6 = wrist, hand, fingers
7 = hip/thigh
8 = lower leg
9 = ankle, foot, toes

ICD-10 describes specific injuries of muscle, fascia, and tendon as strain and laceration. No mention is made of injury to the joints or ligaments in this category. The ICD-10 book instructs the provider to report any associated open wound with a separate code. This is different from ICD-9, in which open wounds are described as being “without complication, complicated, or with tendon involvement” at each anatomic location.

Like sprains, strains are graded according to the severity of the injury, as follows:

- Grade I—a mild injury to the muscle or tendon where only some muscle fibers are damaged
- Grade II—a moderate injury with more extensive damage to muscle fibers, but the muscle is not completely ruptured
- Grade III—a severe injury with a complete rupture of a muscle or tendon

In ICD-10, for example, active treatment of an acute rupture of the left Achilles tendon would be reported with code S86.012A. The “S” indicates this is an acute problem from the injury chapter. The “8” identifies the “lower leg” as the location, and the “6” indicates the type of injury is a “strain.”

In ICD-10, as in ICD-9, the same number can be used to indicate a joint location or a limb location depending on the type of injury. The number “8” indicates an injury to the “knee” if the type of injury is a sprain, but the same number indicates an injury to the “lower leg” if it is a strain. The same ICD-10 code is used, regardless of whether the strain is mild, moderate, or severe with a completely ruptured tendon. Neither ICD-9 nor ICD-10 codes for traumatic ruptures of tendons.

ICD-10 and ICD-9 are similar in making no discrimination between a mild sprain or strain and a complete rupture of a tendon or ligament (except for the upper extremity ligament ruptures...
listed in Table 2). However, the separation of sprain and strain into two distinct category ranges and the reporting of an open wound separately are new ICD-10 concepts.

Remember, when using the *sprain* category, the code should be describing an injury to a joint or ligament; when reporting *strains*, the code is depicting an injury to a muscle or tendon.

Diligent preparation and identification of the areas in which ICD-10 differs from ICD-9 will help smooth the transition to ICD-10 and ensure use of the most specific code(s) to describe the patient’s condition.

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