

## ICD-10 Myths Part 2: Coding Specificity

Written by [Joseph C. Nichols, MD](#)

| Tuesday, 03 June 2014 00:00

2

7

0

7



There is a widely held belief that ICD-10-CM is much more “granular” and will require much greater specificity. It is true that ICD-10-CM will support the reporting of much more specific and detailed information about risk, severity, complexity, comorbidities, and complications, and other key parameters of patient evaluation. There’s a little secret that is seldom mentioned, however: ***You can be just as vague in ICD-10 as you were in ICD-9.***

### Granularity, Specificity and Combination Codes

You will often hear that ICD-10 is much more *granular* than ICD-9. While in most instances ICD-10 does contain more detail than ICD-9, the term *granular* is misused. *Granularity* refers to the fact that data or concepts are discrete grains of information and at lower levels of aggregation or grouping. For example, the concept “apple” is a more granular concept than “fruit,” which is a more granular concept than “food.” *Specificity* refers to the ability of an expression to provide more detail about the nature of an object, condition, or process. For example, “Tree-ripened Golden Delicious apple from Chelan, Washington” is an expression that contains a lot of detail to allow for a greater level of *specificity* about the description of an apple. *Combination codes* refer to codes that combine a number of *granular* concepts together to arrive at a more *specific* description.

With the above in mind, analysis of ICD-9 and ICD-10 codes demonstrates that in most instances, ICD-9 is usually more *granular* than ICD-10 but often less *specific*.

#### Example:

733.82 (ICD-9) - Nonunion of fracture

S72.331N (ICD-10) - Displaced oblique fracture of shaft of right femur, subsequent encounter for open fracture type IIIA, IIIB, or IIIC with nonunion

In the above example, the ICD-9 code contains a single discrete concept (grain), nonunion, while in ICD-10 that discrete concept is part of a longer expression that combines multiple concepts. The ICD-10 code is more *specific* about the nature of this condition because it is a *combination* code and includes multiple key parameters of the condition, but it is not more *granular* based on the definition described.

The non-data geek might think that this is all just semantics, and he or she would be right. But in discussing codes and data, semantics are critical. Understanding and using ICD-10 codes requires an understanding of

these semantics.

Consider the following:

- You are analyzing data to determine the incidence of nonunions for certain fractures to assess complications of treatment.
- You are assessing data to understand the difference in cost for the treatment of this type of complication.
- You are using these codes in claims data to determine the appropriateness of treatments using bone grafting or bone growth stimulators.

In ICD-9 there is a single code that defines “nonunion.” In ICD-10 there are 2,896 codes that include the concept of “nonunion” within the code. In order to accomplish the above tasks, the nature of *granularity*, *detail*, and *combination* codes becomes more important from a business processing and analytic perspective and less of an academic discussion.

While ICD-10 codes in general contain more detail than ICD-9 codes because they combine concepts more frequently, this is not always the case. Codes related to skull fractures, schizophrenia, tuberculosis, and certain neurologic condition have more detailed codes in ICD-9 than in ICD-10.

#### **Example:**

011.46 (ICD-9) - Tuberculous fibrosis of lung, tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals]

A15.0 (ICD-10) - Tuberculosis of lung

In the above example, ICD-10 drops some of the detail about tuberculosis from the set of codes related to this condition.

#### **ICD-10 and Specificity**

There is a sense that ICD-10 requires more specificity. Many providers are concerned that they will be required to use highly specific codes for conditions when they do not have sufficient information or knowledge to use that level of code detail. While ICD-10 allows for more specific description of a number of conditions, it still contains many “unspecified” or vague codes. While ICD-10 supports the description of laterality, most codes include “left,” “right,” and “unspecified” side. In some instances you can be more vague or unspecified in ICD-10 than ICD-9.

**Example:**

518.81 (ICD-9) - Acute respiratory failure

518.83 (ICD-9) - Chronic respiratory failure

J96.0 (ICD-10) - Acute respiratory failure

J96.1 (ICD-10) - Chronic respiratory failure

J96.9 (ICD-10) - Respiratory failure, unspecified

In the above example, you can describe respiratory failure as either acute or chronic in ICD-9 and ICD-10, but in ICD-10 you could also describe respiratory failure as unspecified. ICD-9 does not provide that option.

Below are just a few of the many examples of very vague ICD-10 codes that could be used:

**Example:**

T30.0 (ICD-10) - Burn of unspecified body region, unspecified degree

P15.9 (ICD-10) - Birth injury, unspecified

M12.9 (ICD-10) - Arthropathy, unspecified

H54.7 (ICD-10) - Unspecified visual loss

I51.9 (ICD-10) - Heart disease, unspecified

C80.1 (ICD-10) - Malignant (primary) neoplasm, unspecified

F39 (ICD-10) - Unspecified mood [affective] disorder

While it is hoped that coding would more accurately define the nature of the patient condition, codes like the ones listed above in ICD-10, while not desirable, are technically valid codes.

To take the discussion to an extreme, you could use two valid ICD-10 codes to describe nearly every condition:

R69 - Illness, unspecified

T1490 - Injury, unspecified

**Getting Specific**

In our discussion about ICD-10, we seem to have lost sight of what all of this is about. ICD-10 is not a goal—it's just an enabler to move to a better definition of patient conditions that are important for financial analysis, clinical analysis, quality measures, disease surveillance, determination of effectiveness, more appropriate

payment, measures of safety, and improved knowledge of healthcare to make healthcare delivery more effective and affordable. ICD-10 provides the opportunity to improve the data we rely on for these purposes, but does not guarantee that data will be any more accurate or reliable than it is today.

Today, data is remarkably vague and inconsistent. It is difficult to derive any reliable knowledge about what is happening in the healthcare industry based on the only standard transactions we have about what was done and why across different healthcare enterprises.

The table below (Fig.1) provides a high level view of analysis<sup>[1]</sup> of ICD-9 coding patterns using a payer data set across all lines of business. This data set includes more than 15 million claims and over \$4 billion in charges.

Code Type	Claims	Total Charges	%Claims	%Charges
<i>All Professional Claims</i>	15,352,056	\$ 4,030,052,634	100%	100%
'Unspecified' (and not 'Other' or 'Symptom or Finding')	2,902,691	\$ 709,765,341	19%	18%
'Other'	1,917,163	\$ 509,694,935	12%	13%
'Symptom or Finding'	3,530,464	\$ 675,662,073	23%	17%
Total 'Unspecified', 'Other' and 'Symptom or Finding'	8,350,318	\$ 1,895,122,349	54%	47%

Fig. 1

As can be seen in (Fig.1), for the majority of claims in this data set, the primary diagnosis on the claim was either some symptom or finding, or claims described as "other" or "unspecified." The table below (Fig.2) illustrates examples of primary diagnosis codes that were associated with high dollar/high volume claims in this data set.

Code	Description	Total Charges	Claims
78900	Abdominal pain, unspecified site	\$ 29,331,412	123,737
71946	Pain in joint, lower leg	\$ 22,973,230	96,786
7295	Pain in limb	\$ 13,668,722	78,505
78605	Shortness of breath	\$ 12,533,909	43,463
9597	Knee, leg, ankle, and foot injury	\$ 9,979,457	41,707
7862	Cough	\$ 9,250,724	77,430
7851	Palpitations	\$ 8,181,439	28,228
7820	Disturbance of skin sensation	\$ 6,531,675	18,238
78060	Fever, unspecified	\$ 5,269,369	32,603
7823	Edema	\$ 2,772,549	16,450

Fig. 2

While there may be perfectly appropriate times to use less specific codes, many of these codes should be

rarely, if ever, used. When describing pain in the limb, the clinician should at least describe the location. While a patient may present with palpitations, in most instances, based on a simple EKG, the clinician should be able to describe the type of arrhythmia. Anecdotally, reviewing any large claim-based data set, we see a very similar pattern of vague coding.

There is no other industry that could survive with this level of vague, inaccurate and unreliable data. You would be unlikely to buy an airline ticket if it was to an “unspecified” location arriving at an “unspecified” time. You would not order “unspecified” meat with “other” vegetable and “unspecified” wine at your favorite restaurant. If the airline industry had the same safety record that we see in healthcare, we would see planes dropping out of the sky on a regular basis.

Specificity matters in other industries; it should matter more in healthcare.

### **Summary:**

ICD-10 provides an opportunity to capture better data about both what was done and why in healthcare. Better data will lead to better healthcare knowledge and enable better analysis, more appropriate payment, better policies, and safer care.

There's no point in moving to ICD-10, however, if we don't focus on the underlying issue of incomplete, inaccurate, and overly vague documentation and coding.

You can be just as vague in ICD-10 as you can in ICD-9.

Read [ICD-10 Myths Part 1: The Burden of Documentation](#) by Dr. Nichols.

### **About the Author**

Dr. Nichols is a board certified orthopedic surgeon with a long history in health information technology. He has a wide range of experiences in healthcare information technology on the provider, payer, government and vendor side of healthcare business. He has served in positions in executive management, system design, logical database architecture, product management, consulting and healthcare value measurement for the last 15 of his 35 years in the healthcare industry. He has given over 100 presentations nationally related to ICD-10 over the past three years on behalf of payers, providers, integrated delivery systems, consulting groups, CMS, universities, government entities, vendors and trade associations. He co-chairs the WEDI (Workgroup on Electronic Data Interchange) translation and coding sub-workgroup and has received WEDI merit awards three years in succession. He is also an AHIMA approved ICD-10 coding trainer. He is currently providing consulting services as the president of Health Data Consulting Inc.

### **Contact the Author**

[joenichols@healthdataconsulting.com](mailto:joenichols@healthdataconsulting.com)

To comment on this article go to [editor@icd10monitor.com](mailto:editor@icd10monitor.com)

---

[1] Based on a Health Data Consulting analysis of three years of payer data for approximately one million covered lives looking at primary diagnosis codes on the claim.

---

Last modified on Tuesday, 03 June 2014 05:58



### **Joseph C. Nichols, MD**

Dr. Nichols is a board certified orthopedic surgeon with a long history in health information technology. He has a wide range of experiences in healthcare information technology on the provider, payer, government and vendor side of healthcare business.

He has served in positions in executive management, system design, logical database architecture, product management, consulting and healthcare value measurement for the last 15 of his 35 years in the healthcare industry. He has given over 100 presentations nationally related to ICD-10 over the past three years on behalf of payers, providers, integrated delivery systems, consulting groups, CMS, universities, government entities, vendors and trade associations. He co-chairs the WEDI (Workgroup on Electronic Data Interchange) translation and coding sub-workgroup and has received WEDI merit awards three years in succession. He is also an AHIMA approved ICD-10 coding trainer. He is currently providing consulting services as the president of Health Data Consulting Inc.