California Workers' Compensation Institute
1333 Broadway, Suite 510, Oakland CA 94612
(510) 251-9470

BULLETIN

No. 17-10 May 17, 2017

A new CWCI report that looks at how well California workers' compensation medical providers complied with the use of new ICD-10 codes on their medical bills during the transition from the ICD-9 system finds that 99 percent of submissions had ICD-10 codes, and as expected, a wider range of codes were provided than in the past, but many lacked the additional characters that could better define the injury, identify the type of encounter and improve communication.

In workers' compensation, as in other healthcare delivery systems, diagnostic codes on physician reports, medical forms, and bills provide standard identifiers that facilitate communication between medical providers, providers and payers, and government agencies, while also providing researchers and analysts with clinically relevant groupings that allow for more accurate and precise utilization and cost trend analyses. In October 2015, the 10th revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10) became the official injury classification system for all healthcare delivery in the U.S. The ICD-10 system replaced the ICD-9 system that had been in place for 21 years with a more robust set of codes for use by physicians, claims administrators, case managers, utilization review experts and others to obtain detailed descriptions on injured workers' clinical status. Following Medicare's lead, the California Division of Workers' Compensation allowed medical providers a one-year transition period during which they could utilize ICD-10 codes that did not strictly meet the level of coding specificity called for by the new classification format and structure, but after September 30, 2016 all workers' comp medical services should be coded at the required specificity level.

To generate benchmark data for measuring changes in workers' compensation medical coding and to assess the level of coding compliance after the ICD-10 transition began, the Institute used medical billing data from the IRIS database to examine the diagnosis codes submitted on bills for treatment rendered in the last nine months under the ICD-9 system (January through September 2015) and compared the results to the ICD-10 codes submitted in the first nine months after the ICD-10 transition began (October 2015 through June 2016).

In the ICD-10 system, the level of detail is provided by the number of characters in the diagnosis code. The first three digits define the injury category (e.g., S33 represents a low-back injury), with up to four other characters added to identify the cause of injury, part of body injured, injury severity and type of medical visit (initial visit, subsequent visit, or a sequela visit to treat an aftereffect of the injury). The study's initial analysis of coding specificity involved a simple calculation of the number of characters in the ICD-10 codes that were submitted for primary injuries in the first nine months of the transition. That analysis found that just 1 percent of all ICD-10 codes submitted for services during this transition period used only three characters, so almost all of the submitted codes provided detail to the first subcategory or greater, while nearly 60 percent included a 7th character to indicate the type of visit.

There are more than three times as many distinct diagnostic codes in the ICD-10 system than in the old ICD-9 system (5,095 ICD-9 codes vs. 17,678 ICD-10 codes), so the ICD-10 submissions were dispersed across a much broader range of codes. For example, the top 10 codes submitted under the ICD-9 system accounted for more than 30 percent of the total submissions during the final nine months leading up to the transition, while the top 10 ICD-10 codes used in the initial nine months of the transition represented less than 18 percent of all submissions during this period, and about 20 percent of the submissions after controlling for the 7th character denoting the type of visit.

Lumbar spine injury codes remained the most common diagnoses codes used under the ICD-10 system, accounting for 6 of the top ten ICD-10 codes submitted in the first nine months. Despite the high levels of specificity allowed by the new system, however, the analysis found that the lumbar spine codes ranged from very low specificity (i.e., "low back pain was the number one code submitted) to more specific diagnoses such as radiculopathy, disc displacement and disc degeneration.

The study's analysis of the four ICD-10 codes submitted for shoulder pain during the transition period points to the need for more precise coding. The distribution of the shoulder pain diagnoses among these four codes shows that while 78% of the codes included a 6th character to identify which shoulder was injured, more than one in five failed to provide the subcategory information to identify whether the left or right shoulder was injured, and instead only included a code to note "pain in shoulder" or "pain in unspecified shoulder." Similarly, 1.6 percent of the primary diagnoses in both the ICD-9 and the ICD-10 samples used codes for "injury, unspecified" or "injury, other and unspecified, unspecified site") – codes so lacking in detail and specificity that they are not helpful for any purpose.

The finding that 99 percent of the medical billing submissions during the transition period used an ICD-10 code with at least four characters points to significant success in the conversion to the new coding system. However, findings that show a large share of the codes used during the transition still lacked required detail indicate room for continued improvement -- especially now that the transition period has ended and diagnosis codes are considered invalid if they do not include all of the required characters. The new study provides benchmark data that can be used to measure changes in ICD-10 coding, and the Institute will continue to monitor the use of the codes in California workers' compensation and provide updated results in the future.

In the meantime, CWCI has published its analysis of the ICD-10 coding compliance in a Research Update report, "**Injury Classification in California Workers' Compensation: Medical Coding During the ICD-10 Transition." The report is available to CWCI** members and subscribers in the Research section at (www.cwci.org), while others may purchase a copy from the Institute's online store.

BY/