Brushing Up On ICD-10-PCS

by Sue Bowman, RHIA, CCS

Although the US continues to wait for an implementation date for ICD-10-CM and ICD-10-PCS, HIM professionals should maintain a basic familiarity with these new coding systems. This article provides an overview of ICD-10-PCS.

The Structure of ICD-10-PCS

ICD-10-PCS is intended to replace ICD-9-CM volume 3 for facility reporting of hospital inpatient procedures. It has a seven-character alphanumeric code structure. The letters I and O are not used to avoid confusion with the digits 1 and 0. A character is a stable, standardized code component that has a fixed place in the code. Each character is assigned a value. ICD-10-PCS uses a standard terminology; in other words, a single meaning is defined for each term used in the system.

The index provides the first three or four characters of a code and identifies the specific table that must be used to complete the code. The tables are organized as grids with rows and columns to delineate valid combinations of code characters. The heading provides the values for the first, second, and third characters. The columns provide the values for the fourth, fifth, sixth, and seventh characters. Valid codes are built from a single row in a table.

Because ICD-10-PCS codes consist of individual values rather than lists of fixed codes and text descriptions, each code in the system has a unique definition. New values may be added to the system to represent a specific new approach, device, or qualifier, but whole codes are not reused and given new meanings.

There are 16 **sections** in ICD-10-PCS. Each section identifies the general type of procedure; for example, medical/surgical. The first character of the code always specifies the section. The second, third, fourth, fifth, sixth, and seventh characters mean the same thing within each section, but may mean different things in other sections.

The medical/surgical section contains most, but not all, procedures typically reported in an inpatient setting.

Medical/Surgical Section

The grid below outlines the characters used in the medical/surgical section. The **body system** defines the general physiological system in which the procedure is performed or the anatomical region where the procedure is performed. Some traditional categories are subdivided into several body systems. For example, the cardiovascular system is subdivided into five systems:

- Heart and great vessels
- Upper arteries
- Lower arteries
- Upper veins
- Lower veins

The **root operation** defines the objective of the procedure. If multiple procedures are performed (as defined by distinct objectives), then multiple codes should be assigned.

There are 30 different root operations in the medical/surgical section. Examples include excision and destruction. Composite terms are not root operations. For example, “colonoscopy” is not a root operation because it is a composite of information contained in the root operation value (inspection), body part value (large intestine), and endoscopic approach value (via natural or artificial opening, endoscopic).

The **body part** character defines the specific anatomical site where the procedure is performed. The **approach** defines the technique used to reach the site of the procedure. There are eight approaches in ICD-10-PCS.

The **device** character identifies devices that remain after the procedure is completed. Device values fall into four basic categories: grafts and prostheses; implants; simple or mechanical appliances; and electronic appliances.

The **qualifier** defines an additional attribute of the procedure, if applicable. For example, the qualifier identifies the type of transplant, second site for a bypass, and a diagnostic excision (biopsy).

A "not elsewhere classified" option is allowed for new devices and substances. There is a limited "not otherwise specified" option that allows a general body part, approach, or root operation to be used when the information necessary to select a more specific value is not available.

Medical/Surgical Characters

Character 1	Character 2	Character 3	Character 4	Character 5	Character 6	Character 7
Section	Body system	Root operation	Body part	Approach	Device	Qualifier

The first character of the code specifies the section, which identifies procedure type. The following six characters mean the same thing within each section, but may mean different things in other sections. The characters in the medical/surgical section are shown here.

Additional Clinical Knowledge Required

In many cases, more extensive knowledge of anatomy and physiology, the clinical performance of a procedure, and the purpose of devices is needed for ICD-10-PCS code assignment than is required for ICD-9-CM coding.

Body part values for muscles and tendons are defined by anatomical site (e.g., upper leg muscle, upper leg tendon) instead of name. If the procedure report identifies the muscle or tendon by Latin anatomical name (for example, soleus muscle), an understanding of anatomy and access to an anatomy reference will be needed to select the appropriate body part value. In order to assign the correct peripheral nerve value, coding professionals will need to know whether the documented nerve is a somatic or sympathetic nerve.

According to the draft ICD-10-PCS coding guidelines, nerves and vessels that are not identified by a separate body part value are coded to the closest proximal branch identified by a body part value. This may require anatomy review and ongoing access to an anatomy reference. For example, the laryngeal nerve is a branch of the vagus nerve, so a procedure performed on the laryngeal nerve is coded to the body part value for vagus nerve. Detailed knowledge of anatomy is also needed to assign the appropriate body part value for bones and joints.

The top table [below] provides examples of codes from the medical/surgical section. Any specific clinical knowledge required is noted in the "comments" column. The character values for each of these codes can be obtained by accessing the ICD-10-PCS system on the Centers for Medicare and Medicaid Services Web site.

Procedures outside the Medical/Surgical Section

Most procedures typically reported in an inpatient setting can be found in the medical/surgical section of ICD-10-PCS. However, a number of significant procedures that are currently reported with ICD-9-CM procedure codes can be found in other sections. The bottom table [below] provides examples. As with medical/surgical codes, the character values for each of these codes can be obtained by accessing the ICD-10-PCS system on the Centers for Medicare and Medicaid Services Web site.

ICD-10-PCS Code Examples

Medical/Surgical Code Examples

Procedure	ICD-10-PCS Code	Comments

Percutaneous transluminal coronary angioplasty of two coronary arteries: left anterior descending artery with stent placement and right coronary artery with no stent	02703DZ 02703ZZ	
Open posterior tarsal tunnel release	01NG0ZZ	Nerve released in posterior tarsal tunnel is the tibial nerve.
Sigmoidoscopy with sigmoid polypectomy	0DBN8ZZ	
Fifth ray carpometacarpal joint amputation, left hand	0X6K0Z8	Qualifier value for complete fifth ray is used because a complete ray amputation is through the carpometacarpal joint.
Percutaneous placement of Swan-Ganz catheter in superior vena cava	02HV32Z	Swan-Ganz catheter is coded to the device value "monitoring device" because it monitors pulmonary artery output.
Placement of intrathecal infusion pump for pain management, percutaneous	0JH733Z	This device resides principally in the subcutaneous tissue of the back, so it is coded to the subcutaneous and fascia body system.
Endoscopic retrograde cholangiopancreatography (ERCP) with lithotripsy of common bile duct stone	0FF98ZZ	ERCP is performed through the mouth to the biliary system via the duodenum, so the approach value is via natural or artificial opening, endoscopic.
Right shoulder arthroscopy with coracoacromial ligament release	0MN14ZZ	The body part value for right coracoacromial ligament is shoulder bursa and ligament, right.
Fasciocutaneous flap closure of left thigh, open	0JXM0ZC	The qualifier identifies the body layers that are included in the procedure (skin, subcutaneous tissue, and fascia).
Percutaneous biopsy of right gastrocnemius muscle	0KBS3ZX	The body part value is lower leg muscle, right. The root operation is "excision," and the qualifier indicates "diagnostic" to denote that this is a biopsy.
Endoscopic left leg flexor hallucis longus tendon transfer	0LXP4ZZ	The body part value is lower leg tendon, left.
Uterine artery embolization	04LD3DZ	Since the uterine artery is not identified by a separate body part value, it is coded to the closest proximal branch identified by a body part value (the left common iliac artery).
Suture repair of right biceps tendon laceration, open	0LQ30ZZ	The body part value is upper arm tendon, right.
Carpal tunnel release, percutaneous endoscopic	01N54ZZ	The body part value is median nerve.

Nonmedical/Surgical Section Code Examples

Procedure	ICD-10-PCS Code	Comments
Bone marrow transplant using donor marrow from sibling, central venous infusion	30243G1	A "3" in the first character position indicates the administration section. Character "6" in the administration section identifies substance (e.g., bone marrow).
Esophagogastroscopy with botox injection into esophageal sphincter	3E0S33Z	Botulinum toxin is a paralyzing agent with temporary effects; it does not sclerose or destroy the nerve.
Epidural injection of mixed steroid and local anesthetic for pain control	3E0S33Z	The substance value anti-inflammatory is used because the anesthetic is only added to lessen the pain of the injection.

Pulsatile compression boot with intermittent inflation	5A02115	A "5" in the first character position indicates the extracorporeal assistance and performance section. The root operation "0" is assistance (taking over a portion of a physiological function by extracorporeal means).
Open in utero repair of congenital diaphragmatic hernia	10Q00ZK	A "1" in the first character position indicates the obstetrics section. In ICD-10-PCS, the diaphragm is considered part of the respiratory system, so the qualifier (the seventh character) indicates that the procedure was performed on the respiratory system (the body part value indicates that the procedure was performed on the fetus).
Intermittent mechanical ventilation	5A0915Z	

Conclusion

Implementation of ICD-10-PCS presents an opportunity to provide better data needed to meet the demands of an increasingly global and electronic healthcare environment. It also provides a significant opportunity to improve the capture of information about the increasingly complex delivery of healthcare.

Even though the implementation date is not yet known, it is not too early to begin planning for the transition to a new coding system. Implementation experience in other countries has shown that early preparation is key to success, and education of coding professionals is certainly an important component of the preparation process. Coding professionals should start taking advantage of available educational programs and resources.

History and Benefits of ICD-10-PCS

ICD-10-PCS was completed in 1998 by 3M Health Information Systems under a contract from the Centers for Medicare and Medicaid Services. Development of the system was guided by a technical advisory panel of industry representatives. The major goals for system development were to improve the accuracy and efficiency of coding, reduce training, and improve communication with physicians. ICD-10-PCS is updated annually by 3M.

Benefits of ICD-10-PCS

ICD-10-PCS has been formally tested by the Clinical Data Abstraction Centers, which found that:

- ICD-10-PCS is more complete and has greater specificity than ICD-9-CM.
- ICD-10-PCS is easily expandable.
- The multiaxial structure makes it easier to analyze.
- The standardized terminology makes it easier to use once the coding professional has initial training.

The ICD-10-PCS code structure results in qualities that optimize the performance of the system in electronic applications and maximize the usefulness of coded data. These qualities include optimal search capability, consistent character meaning, consistent values where possible, and code readability.

References

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