

The Circulatory System and ICD-10-CM/PCS

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Many coding professionals will need to learn new terminology and brush up on their anatomy and physiology (A&P) knowledge to prepare for the ICD-10-CM/PCS transition. Although it is still too early for intense training on the new code sets, now is the time for coding professionals to gain knowledge on how ICD-10-CM/PCS differs from ICD-9-CM, in addition to refreshing their A&P knowledge.

This article focuses on some of the terminology and classification changes in circulatory system conditions and discusses the A&P knowledge required to code circulatory procedures.

ICD-10-CM

Chapter 9 in ICD-10-CM classifies diseases and disorders of the circulatory system and includes categories I00–I99. The chapter's organization is comparable to chapter 7's organization in ICD-9-CM with one notable change in the order of conditions under the section for ischemic heart diseases (I20–I25). In ICD-9-CM the first condition classified under ischemic heart disease is acute myocardial infarction, whereas angina pectoris is the first condition classified in ICD-10-CM.

Hypertension

The nature of hypertension (benign, malignant, or unspecified) is no longer an axis for classifying hypertension in ICD-10-CM. Instead, hypertension is classified only by type, primary or secondary. There is only one code (I10) for essential or primary hypertension. Coding professionals would assign I10 if the physician documented arterial, benign, essential, malignant, primary, or systemic hypertension.

Myocardial Infarction

The definition and terminology for an acute myocardial infarction has also been updated in ICD-10-CM. The time frame for an acute myocardial infarction has changed from eight weeks or less in ICD-9-CM to four weeks or less in ICD-10-CM. In addition, ST elevation and non-ST elevation are in the ICD-10-CM code titles. In ICD-9-CM these are just inclusion terms and are not included in the code titles. The table to the right provides a comparison of ICD-10-CM initial myocardial infarction code titles with ICD-9-CM acute myocardial infarction code titles.

Certain codes from category I21 also classify the responsible coronary artery. An example is I21.01, ST elevation (STEMI) myocardial infarction involving left main coronary artery. In addition, ICD-10-CM no longer classifies the episode of care (initial versus subsequent).

ICD-10-CM also classifies subsequent acute myocardial infarctions to category I22, Subsequent ST elevation (STEMI) and non-ST elevation (NSTEMI) myocardial infarction. A code from category I22 is assigned when a patient who has suffered an initial acute myocardial infarction suffers a new acute myocardial infarction within the four-week time frame of the initial acute myocardial infarction.

Body Part Values for Arteries and Veins

Character	Upper Artery	lower r Artery	Upper VEIN	lower VEIN

0	Internal Mammary Artery, Right	Abdominal Aorta	Azygos Vein	Inferior Vena Cava
1	Internal Mammary Artery, Left	Celiac Artery	Hemiazygos Vein	Splenic Vein
2	Innominate Artery	Gastric Artery	N/A	Gastric Vein
3	Subclavian Artery, Right	Hepatic Artery	Innominate Vein, Right	Esophageal Vein
4	Subclavian Artery, Left	Splenic Artery	Innominate Vein, Left	Hepatic Vein
5	Axillary Artery, Right	Superior Mesenteric Artery	Subclavian Vein, Right	Superior Mesenteric Vein
6	Axillary Artery, Left	Colic Artery, Right	Subclavian Vein, Left	Inferior Mesenteric Vein
7	Brachial Artery, Right	Colic Artery, Left	Axillary Vein, Right	Colic Vein
8	Brachial Artery, Left	Colic Artery, Middle	Axillary Vein, Left	Portal Vein
9	Ulnar Artery, Right	Renal Artery, Right	Brachial Vein, Right	Renal Vein, Right
A	Ulnar Artery, Left	Renal Artery, Left	Brachial Vein, Left	N/A
B	Radial Artery, Right	Inferior Mesenteric Artery	Basilic Vein, Right	Renal Vein, Left
C	Radial Artery, Left	Common Iliac Artery, Right	Basilic Vein, Left	Common Iliac Vein, Right
D	Hand Artery, Right	Common Iliac Artery, Left	Cephalic Vein, Right	Common Iliac Vein, Left
E	N/A	Internal Iliac Artery, Right	N/A	N/A

F	Hand Artery, Left	Internal Iliac Artery, Left	Cephalic Vein, Left	External Iliac Vein, Right
G	Intracranial Artery	N/A	Hand Vein, Right	External Iliac Vein, Left
H	Common Carotid Artery, Right	External Iliac Artery, Right	Hand Vein, Left	Hypogastric Vein, Right
J	Common Carotid Artery, Left	External Iliac Artery, Left	N/A	Hypogastric Vein, Left
K	Internal Carotid Artery, Right	Femoral Artery, Right	N/A	N/A
L	Internal Carotid Artery, Left	Femoral Artery, Left	Intracranial Vein	N/A
M	External Carotid Artery, Right	Popliteal Artery, Right	Internal Jugular Vein, Right	Femoral Vein, Right
N	External Carotid Artery, Left	Popliteal Artery, Left	Internal Jugular Vein, Left	Femoral Vein, Left
P	Vertebral Artery, Right	Anterior Tibial Artery, Right	External Jugular Vein, Right	Greater Saphenous Vein, Right
Q	Vertebral Artery, Left	Anterior Tibial Artery, Left	External Jugular Vein, Left	Greater Saphenous Vein, Left
R	Face Artery	Posterior Tibial Artery, Right	Vertebral Vein, Right	Lesser Saphenous Vein, Right
S	Temporal Artery, Right	Posterior Tibial Artery, Left	Vertebral Vein, Left	Lesser Saphenous Vein, Left
T	Temporal Artery, Left	Peroneal Artery, Right	Face Vein, Right	Foot Vein, Right

U	Thyroid Artery, Right	Peroneal Artery, Left	N/A	N/A
V	Thyroid Artery, Left	Foot Artery, Right	Face Vein, Left	Foot Vein, Left
W	N/A	Foot Artery, Left	N/A	N/A
Y	Upper Artery	Lower Artery	Upper Vein	Lower Vein

Other Circulatory Conditions

Acute myocardial infarction is not the only circulatory condition with updated terminology. Additional examples of terminology differences between the two classification systems are angina pectoris and acute coronary thrombosis not resulting in myocardial infarction.

The terminology for angina pectoris for ICD-10-CM code I20.0 is "unstable angina," whereas ICD-9-CM code 411.1 defines it as "intermediate coronary syndrome." ICD-10-CM code I20.1 is defined as "angina pectoris with documented spasm," while ICD-9-CM code 412.1 uses the terminology "prinzmetal angina."

In addition, the terminology for ICD-10-CM code I24.0 is "acute coronary thrombosis not resulting in myocardial infarction," whereas ICD-9-CM code 411.81 defines it as "acute coronary occlusion without myocardial infarction."

ICD-10-PCS

Every ICD-10-PCS code is seven characters long, and each character represents an aspect of the procedure. One of 34 values can be assigned to each of the seven characters; numbers 0 through 9 and the letters of the alphabet (except I and O) are utilized.

The second character defines the body system, which is the general physiological system or anatomic region involved. There are a total of 31 body systems in ICD-10-PCS, with five of those body systems pertaining to the circulatory system. The five circulatory body systems are heart and great vessels, upper arteries, lower arteries, upper veins, and lower veins.

The fourth character defines the body part or specific anatomical site where the procedure was performed. There are up to 34 possible body part values for each body system. Not every body part has its own distinct body part value. For example, there are two body systems for the arteries, and since each body system has a maximum of 34 body parts, only 68 arteries can have their own distinct body part value.

ICD-10-PCS Coding Guideline B4.2 provides guidance on the selection of the body part value for procedures performed on a body part with no distinct body part value. It states that where a specific branch of a body part does not have its own body part value, the body part is coded to the closest proximal branch that has a specific body part value.

Body Part Values for Arteries

Two of the five circulatory body systems are for the arteries. Arteries are classified as upper and lower, with the dividing point in the body being the diaphragm.

Thirty upper arteries have their own distinct body part value in ICD-10-PCS, as illustrated in the table on page 63. A procedure performed on the left occipital artery would have a fourth character value of N for the left external carotid artery.

Thirty-one lower arteries have their own distinct body part value, as illustrated in the table. The pancreatic artery does not have its own distinct body part value; therefore, a procedure performed on this artery would have a fourth character value of 4 for the splenic artery.

Body Part Values for Veins

Similar to the arteries, veins also are subdivided into two body systems: upper veins and lower veins. Twenty-six upper veins have their own distinct body part value, as illustrated in the table on page 63. An upper vein with no distinct body part value is coded to the closest proximal vein with a distinct body part value. For example, a procedure performed on the left radial vein would have a fourth character value of A for the left brachial vein.

Twenty-six lower veins have their own distinct body part value, as illustrated in the table. A procedure performed on the right popliteal vein would have a fourth character value of M for right femoral vein.

Code Title Comparison of ICD-10-CM and ICD-9-CM MI Codes

ICD-10-CM	
121	ST elevation (STEMI) and non-ST elevation (NSTEMI) myocardial infarction
121.0	ST elevation (STEMI) myocardial infarction of anterior wall
121.1	ST elevation (STEMI) myocardial infarction of inferior wall
121.2	ST elevation (STEMI) myocardial infarction of other sites
121.3	ST elevation (STEMI) myocardial infarction of unspecified site
121.4	Non-ST elevation (NSTEMI) myocardial infarction
ICD-9-CM	
410	Acute myocardial infarction
410.0	Of anterolateral wall
410.1	Of other anterior wall
410.2	Of inferolateral wall

410.3	Of inferoposterior wall
410.4	Of other inferior wall
410.5	Of other inferior wall
410.6	True posterior wall infarction
410.7	Subendocardial infarction
410.8	Of other specified sites
410.9	Unspecified site

References

Centers for Medicare and Medicaid Services (CMS). "2011 ICD-10-PCS Code Tables and Index." www.cms.hhs.gov/ICD10.

CMS. "2011 ICD-10-PCS Reference Manual." www.cms.hhs.gov/ICD10.

CMS. "2011 Official ICD-10-PCS Coding Guidelines." www.cms.hhs.gov/ICD10.

National Center for Health Statistics. "ICD-10-CM Index and Tabular." 2011. www.cdc.gov/nchs/icd/icd10cm.htm.

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Article citation:

Barta, Ann. "The Circulatory System and ICD-10-CM/PCS" *Journal of AHIMA* 82, no.5 (May 2011): 62-64.

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