



## **Summary of March 2011 ICD-9-CM Coordination and Maintenance Committee Meeting**

The ICD-9-CM Coordination and Maintenance (C&M) Committee, cosponsored by the Centers for Disease Control and Prevention (CDC) and the Centers for Medicare and Medicaid Services (CMS), met on March 9-10, 2011 in Baltimore, MD. Donna Pickett, RHIA, from CDC, and Patricia Brooks, RHIA, from CMS, cochaired the meeting.

This summary does not include all of the details of the code proposals or all of the recommendations made at the meeting. For complete details, review the summary reports, audio transcripts, and topic packets posted on the CMS and NCHS websites. Information from the diagnosis portion of the meeting is posted on the CDC website and can be accessed at the following link: [http://www.cdc.gov/nchs/icd/icd9cm\\_maintenance.htm](http://www.cdc.gov/nchs/icd/icd9cm_maintenance.htm). Information from the procedure portion of the meeting can be found at the CMS website and can be accessed at the following link: [http://www.cms.hhs.gov/ICD9ProviderDiagnosticCodes/03\\_meetings.asp](http://www.cms.hhs.gov/ICD9ProviderDiagnosticCodes/03_meetings.asp).

**The proposed code modifications, if approved by CMS and CDC, would go into effect with discharges on or after October 1, 2011.** This is the last regular update to ICD-9-CM and ICD-10-CM/PCS before the partial code freeze.

Suggestions for procedure code proposals to be considered at a future Coordination and Maintenance Committee may be emailed to Pat Brooks at [Patricia.brooks2@cms.hhs.gov](mailto:Patricia.brooks2@cms.hhs.gov) or mailed to: Centers for Medicare & Medicaid Services, CMM, HAPG, Division of Acute Care, Mail Stop C4-08-06, 7500 Security Boulevard, Baltimore, Maryland 21244-1850.

Suggestions for diagnosis code proposals for consideration at a future Coordination and Maintenance Committee may be emailed to Donna Pickett at [dfp4@cdc.gov](mailto:dfp4@cdc.gov) or mailed to: Donna Pickett, National Center for Health Statistics, 3311 Toledo Road, room 2402, Hyattsville, Maryland 20782.

The next meeting of the ICD-9-CM Coordination and Maintenance Committee is scheduled for September 14-15, 2011 and will be held at the CMS building in Baltimore, MD. New code proposals for inclusion on this agenda must be received by **July 15, 2011**.

## **ICD-10-CM/PCS Topics**

### **Partial Code Freeze for ICD-9-CM and ICD-10-CM/PCS**

On October 1, 2012, there will be only limited code updates to both the ICD-9-CM and ICD-10-CM/PCS code sets to capture new technologies and diseases. On October 1, 2013, there will only be limited code updates to ICD-10-CM/PCS to capture new technologies and diseases (there will be no updates to ICD-9-CM, as it will no longer be used for reporting). On October 1, 2014, regular updates to ICD-10-CM/PCS will begin.

The ICD-9-CM Coordination and Maintenance Committee will continue to meet twice a year during the partial code freeze. At these meetings, the public will be asked to comment on whether or not requests for new diagnosis or procedure codes should be created during the freeze period, based on the criteria of the need to capture a new technology or disease. Any ICD-10-CM/PCS code requests not meeting the criteria will be evaluated for implementation on October 1, 2014 once the partial code freeze has ended.

### **ICD-10-CM/PCS Abbreviated Titles**

Sixty-character abbreviated titles have been developed for the 2011 version of the ICD-10-CM and ICD-10-PCS code sets. They have been posted on the CMS web site, and CMS will maintain and update these abbreviated titles each year.

### **Version 28.0 ICD-10 MS-DRGs**

The ICD-10 MS-DRGs v28.0 Definitions Manual (based on Fiscal Year 2011 MS-DRGs) is posted on the CMS web site. The ICD-10 MS-DRGs will be subject to final rulemaking. The National Technical Information Service is selling ICD-10 MS-DRG grouper software.

### **2011 GEMs Update**

The 2011 General Equivalence Mappings (GEMs) are posted for review and public comment. The updated files contain all changes to date in response to public comment as mandated by the Affordable Care Act, for the period ending November 11, 2010, as well as additional ongoing internal review for accuracy and completeness. The public support and collaboration on the GEMs led to many improvements in the accuracy and completeness of the GEMs as an ICD-10 transition resource.

### **ICD-10-PCS Device Key Being Developed**

An ICD-10-PCS device key similar in organization and function to the ICD-10-PCS body part key is under development. The device key will help users choose the correct ICD-10-PCS device value for a given clinical or industry device name. Entries will be available for look-up by both device value and clinical or industry device name. Similar in function to “includes” notes in ICD-10-CM, the ICD-10-PCS device key will be an official part of the classification system.

The draft device key will be posted with the FY 2012 ICD-10-PCS update for public review and comment prior to the September ICD-9-CM C&M Committee meeting. Industry input will be solicited on the draft document. A detailed presentation on the device key and related reference material will be provided at the September C&M Committee meeting.

### **New FY 2012 ICD-10-PCS Update Schedule**

The ICD-10-PCS annual update for Fiscal Year (FY) 2012 will follow the same update schedule as the annual ICD-9-CM update for procedure codes. CMS is adopting this new ICD-10-PCS update schedule in preparation for the move to ICD-10 on October 1, 2013. The updated timeline will be as follows:

June 2011: The FY 2012 ICD-10-PCS final addenda will be posted on CMS' ICD-10 web page ([www.cms.gov/ICD10](http://www.cms.gov/ICD10)).

October 2011: The FY 2012 ICD-10-PCS GEMs and the Procedure Reimbursement Mappings will be posted on CMS' ICD-10 web page.

This new schedule of posting the ICD-10-PCS final addenda in June and the updated ICD-10-PCS GEMs and Reimbursement Mappings in October will continue each year up to and after the implementation of ICD-10.

## **Diagnoses**

### **ICD-9-CM Proposals**

#### **Seclusion Status**

A unique code has been requested for seclusion status. Seclusion is used for behavioral health purposes to protect the patient against injury to self or others because of an emotional or behavioral disorder. The use of seclusion poses a risk to the patient's physical safety and well-being. Patients must be evaluated and monitored more closely when seclusion is used. The proposed code would exclude the need for isolation (code V07.0) or seclusion imposed by correction and law enforcement authorities for security purposes (omit code). It was suggested by a meeting attendee that inclusion terms be added to further clarify the use of the proposed code.

#### **Vitreomacular Adhesion**

A unique code for vitreomacular adhesion has been requested. Vitreomacular adhesion is a condition affecting the macula. It may lead to visual impairment or blindness and a variety of complications (macular edema, macular pucker, and macular hole). It occurs as a result of the natural process of aging. The proposed code would include vitreomacular traction and exclude traction detachment with vitreoretinal organization (code 361.81).

### **Partial Tear of Rotator Cuff**

A new code for partial tear of rotator cuff has been proposed. A partial tear of the rotator cuff is an area of damage to the rotator cuff tendons, where the tear does not go all the way through the tendons. A meeting attendee noted that the Current Procedural Terminology (CPT) defines a rotator cuff tear as complete or partial according to the number of muscles involved rather than the depth. The correct definition should be clarified in order to ensure consistency between diagnosis and procedure codes.

### **Malnutrition**

A modification of a previously-presented proposal to create several new malnutrition codes and bring the classification up-to-date with the current standard of care and understanding of malnutrition-disease interaction was presented. The modified proposal would involve creation of a new subcategory for severe malnutrition in injury, illness or other disorders. This subcategory would include codes for severe malnutrition in acute injury, acute illness, chronic illness, and environmental and social circumstances. The proposal also involves a number of index entry revisions, including reclassification of first, second, and third degree malnutrition, malignant malnutrition, and protein malnutrition to code 263.9.

Several meeting attendees expressed concern about the use of the ambiguous term “in” and the need to either use another term or provide clarification as to whether this term is intended to denote a causal relationship or just “present with.”

### **Solitary Pulmonary Nodules**

New codes were proposed for solitary pulmonary nodule, sub-segmental branch of the bronchial tree, and solitary pulmonary nodule, sub-segmental branch of the bronchial tree, more than one finding on radiological and other examination of lung field. A meeting attendee suggested that the title of the second proposed code be modified to indicate “more than one nodule” rather than “more than one finding.”

A single pulmonary nodule is a round or oval spot (lesion) in the lungs typically deep within and surrounded with the lung parenchyma in a sub-segmental branch of the bronchial tree. On imaging examination, more than one single pulmonary nodule may be present on the lung field. The two single pulmonary nodules tend to be distinct and not in close anatomical proximity.

### **Wandering**

A new code for “wandering” was proposed. Two options for code placement were presented. In the first option, the code would be created in subcategory 799.8, Other ill-defined conditions. In the second option, a V code would be created in category V40, Mental and behavioral problems. In both options, the underlying disorder would be coded first. Meeting attendees suggested expanding the “code first” note to provide additional examples of underlying disorders. It was also suggested that a “use additional code” note be added under the codes for common underlying disorders. The addition of an Excludes note should also be considered to address situations that are not intended to be included in the proposed code, such as disorientation due to substance abuse.

Individuals with autism spectrum disorders, developmental disabilities, or other conditions such as Alzheimer's disease are at higher risk of wandering off. Wandering places individuals with these disorders in harmful and potentially life-threatening situations, making this an important safety issue.

### **Acute Kidney Diseases and Related Disorders**

The National Kidney Foundation proposed new codes and other revisions to update the classification of acute kidney disease and acute kidney injury to reflect current clinical understanding and definitions. This proposal includes creation of a subcategory for acute kidney injury that would distinguish the stages of this condition and creation of a new code for acute kidney disease without acute kidney injury. Acute renal insufficiency would be reclassified to proposed code 584.10, Acute kidney injury, unspecified stage. Existing code 584.9 would be revised to state "Acute kidney injury or disease, unspecified."

Meeting attendees expressed concern about the proposed reclassification of acute renal insufficiency to a new acute kidney injury code because acute renal insufficiency and acute kidney injury are not the same thing. It was suggested that "nontraumatic" be added to the title of the proposed subcategory for acute kidney injury to distinguish this condition from traumatic kidney injury. The Renal Physicians Association indicated they do not support creation of codes for the different stages of acute kidney injury because these terms are not in current use yet.

### **Smoke Inhalation**

A new code for respiratory conditions due to smoke inhalation has been proposed in category 508, Respiratory conditions due to other and unspecified external agents. This code would include smoke inhalation NOS (not otherwise specified). As part of the code proposal, notes would be added under categories 506, Respiratory conditions due to chemical fumes and vapors, and 508 indicated that an additional should be assigned to identify the specific associated respiratory conditions.

### **Positive Finding for Interferon Gamma Release Assays (IGRA)**

A new code for nonspecific reaction to cell mediated immunity measurement of gamma interferon antigen response without active tuberculosis was proposed. A meeting attendee suggested adding the actual name of the test as an inclusion term.

Before 2001, the tuberculin skin test was the only available immunologic test for *Mycobacterium tuberculosis* infection approved in the US. Recognition that interferon gamma (IFN- $\gamma$ ) played a critical role in regulating cell-mediated immune responses to *M. tuberculosis* infection led to the development of a blood test for the detection of *M. tuberculosis* infection by interferon gamma release assays (IGRAs). IGRAs detect sensitization to *M. tuberculosis* by measuring IFN- $\gamma$  release in response to antigens representing *M. tuberculosis*.

### **Atypical Femoral Fracture**

New codes have been proposed for atypical fracture of the subtrochanteric region and femoral shaft and for long-term (current) use of bisphosphonates. The atypical fracture code would be located in subcategory 733.1, Pathologic fracture. Although ideally, the atypical fracture code should be located with the stress fracture codes, there is no room for expansion of the stress

fracture codes. Meeting attendees expressed concern that “atypical” may be used to describe other types of fractures than the type represented in this proposal.

In recent years, there have been an increasing number of reports of atypical fractures of the subtrochanteric region of the hip and the femoral shaft in patients receiving long-term bisphosphonate therapy.

### **Severely Calcified Coronary Lesions**

A unique code for coronary atherosclerosis due to severely calcified coronary lesion has been requested. Meeting attendees questioned whether the term “severely” in the proposed code title is necessary, as this would create difficulty in coding lesions that are documented as calcified, but “severely” isn’t mentioned. It was also suggested that the term “plaque” be used instead of “lesion,” in order to be consistent with the terminology used in existing code 414.3, Coronary atherosclerosis due to lipid rich plaque.

Calcified lesions are more difficult to treat with angioplasty and stenting because the calcium deposits may block stents from reaching the desired location and may prevent the stent from fully expanding to the optimal size. Research has also shown that an increased amount of calcium deposits leads to a higher incidence of major adverse cardiac events.

### **Hepatopulmonary Syndrome**

A new code for hepatopulmonary syndrome was proposed. An instructional note would indicate that the underlying liver disease should be coded first.

Hepatopulmonary syndrome is a complication of liver disease. It involves pulmonary microvascular dilation with intrapulmonary shunting resulting in hypoxemia. The only effective, long-term treatment for hepatopulmonary syndrome related to chronic liver disease is liver transplant.

### **Infection Following Transfusion**

A code for infection following transfusion, infusion, or injection of blood and blood products has been proposed. Two options for the proposed code title were presented. In the first option, the code title would not specify the infection as acute or chronic, whereas in the second option, the infection would be specified as acute. At previous C&M Committee meetings, concerns were expressed about whether a code for infection following transfusion, infusion, or injection of blood and blood products should be used for acute and chronic infections. An alternative approach to creating a code specifying “acute” infections would be to create a guideline explaining that the code should only be used for acute, not chronic, infections.

An instructional note under the proposed code would indicate that HIV disease (042) should be coded first, if applicable. Meeting attendees raised questions about the use of code V08 with the proposed code as well as how the proposed code might be used with hepatitis codes. A meeting attendee expressed concern about the use of the word “following,” since this term can just indicate a sequence of events rather than a relationship. It was noted that the term “following” is already used in existing code 999.39, Infection following other infusion, injection, transfusion, or vaccination, as well as in inclusion terms under subcategory 999.3, Other infection.

### **Postoperative Respiratory Failure**

New codes have been proposed for pulmonary insufficiency following trauma and surgery, other pulmonary insufficiency, not elsewhere classified, following trauma and surgery, and acute and chronic respiratory failure following trauma and surgery. A meeting attendee suggested changing the title of the proposed code for acute and chronic respiratory failure following trauma and surgery to “acute on chronic” respiratory failure following trauma and surgery.

Respiratory failure due to trauma, surgery, or shock is currently indexed to code 518.5, Pulmonary insufficiency following trauma and surgery, which is broad and covers a number of respiratory complications that are less severe than respiratory failure.

### **Postoperative Shock**

A new subcategory for postoperative shock was proposed, with the creation of specific codes for unspecified postoperative shock, cardiogenic postoperative shock, septic postoperative shock, and other postoperative shock. An instructional note under the proposed code for septic postoperative shock would indicate that systemic inflammatory response syndrome due to infectious process with organ dysfunction (995.92) should be coded first. Meeting attendees suggested changing this note to a “use additional code” note, revising the note to indicate the underlying infection should be coded first, or deleting the note, since the codes for systemic inflammatory response syndrome can never be sequenced first. A suggestion was made to consider a unique code for postoperative hypovolemic shock rather than including it in the proposed code for other postoperative shock.

Shock is a physiologic state characterized by decreased perfusion of body tissues, resulting in decreased oxygen delivery and local imbalance between oxygen delivery and consumption. The effects of oxygen deprivation are initially reversible, but rapidly become irreversible: cell death, end-organ injury, multi-system organ failure, death. Manifestations of shock include low mean blood pressure, tachycardia, cool and clammy skin, altered mental status, and decreased urine output.

### **Drug-Induced Pancytopenia**

New codes have been proposed for drug-induced and other pancytopenia. Meeting attendees suggested creating a unique code for chemotherapy-induced pancytopenia.

### **Hypertrophic Cardiomyopathy**

New codes have been requested for hypertrophic obstructive cardiomyopathy and other hypertrophic cardiomyopathy.

### **Acute Interstitial Pneumonitis**

A new code for acute interstitial pneumonia was proposed. Meeting attendees commented that clarification of the terms “pneumonitis” and “pneumonia,” as used on the context of this code proposal, is needed because these terms are often used interchangeably. The proposed index changes would add to the confusion and result in excessive querying of providers.

Acute interstitial pneumonitis is a rapidly progressive form of interstitial pneumonia, with a distinct histopathology described as an organizing diffuse alveolar damage, identical to the

pattern found in acute respiratory distress syndrome caused by sepsis and shock. The term “acute interstitial pneumonitis” is reserved for cases of unknown cause. Acute interstitial pneumonitis may also be referred to as “acute interstitial pneumonia.”

### **Pneumothorax and Air Leak**

Unique codes for primary spontaneous pneumothorax, secondary spontaneous pneumothorax, other air leak, and other pneumothorax have been proposed. For the proposed code for secondary spontaneous pneumothorax, an instructional note would indicate that the underlying condition should be coded first. A meeting attendee suggested also creating a unique code for chronic pneumothorax.

The term “postoperative air leak” is currently indexed to code 512.1, Iatrogenic pneumothorax. However, it is possible to have a postoperative air leak without significant air in the pleural space, since chest tubes are often placed following procedures involving a risk of air leak. It is also possible to have a persistent air leak which is not postoperative, such as when a chest tube has been placed for a primary spontaneous pneumothorax and the lung re-expands, but the air leak persists. The leak usually closes in a few days, but when it persists, that is an indication for a surgical intervention, usually thoracoscopic.

### **Thalassemia**

Several codes for specific types of thalassemia have been proposed:

- Unspecified thalassemia
- Alpha thalassemia
- Beta thalassemia
- Delta-beta thalassemia
- Thalassemia minor
- Hemoglobin E-beta thalassemia

Thalassemia is a family of inherited hemoglobinopathies, which in their severest form require life-long blood transfusions for survival. The subsequent iron overload can lead to multisystem complications. There have been many recent advances in the care of these patients including new iron chelators and new technology for the management of the complications. These patients represent both high public health and research utilization because they require life-long monthly blood transfusions, iron overload monitoring, chelation therapy, and they are candidates for hematopoietic stem cell transplant.

### **Infection Due to Central Venous Catheter**

A new code has been proposed for local infection due to central venous catheter. It has also been proposed to modify the title of existing code 999.31 to state “Bloodstream infection due to central venous catheter.” Meeting attendees suggested revising code 999.31 for use for unspecified infection due to central venous catheter and creating a new code for bloodstream infection due to central venous catheter in order to minimize disruption to data trending. It was

also suggested that cellulitis be added as an inclusion term under the proposed new code for local infection due to central venous catheter.

### **Atrial Fibrillation and Flutter**

Several unique codes for different types of atrial fibrillation were proposed:

- Unspecified atrial fibrillation
- Paroxysmal atrial fibrillation
- Persistent atrial fibrillation
- Long-standing persistent atrial fibrillation
- Permanent atrial fibrillation
- Other atrial fibrillation

Several new codes for atrial fibrillation and flutter were proposed for ICD-10-CM as well (see ICD-10-CM Proposals below).

Paroxysmal atrial fibrillation involves episodes that terminate spontaneously within 7 days (most less than one day). Persistent atrial fibrillation is sustained generally for over 7 days (it may be terminated by drug therapy or electrical cardioversion). Long-standing persistent atrial fibrillation is persistent atrial fibrillation that has been present for a year or more, but that is still susceptible to being terminated by cardioversion or other procedures such as ablation. Permanent atrial fibrillation is long-standing (over a year), with attempts to terminate it unsuccessful or not indicated or attempted. These terms apply to atrial fibrillation that is not related to a reversible cause. If it is secondary to a treatable, underlying condition, then it would be considered separately, since treatment of the underlying condition will usually eliminate the atrial fibrillation.

### **Novel Influenza**

A new subcategory for influenza due to novel influenza A was proposed, along with modifications to existing subcategory 488.1 to clarify that this subcategory is intended for the 2009 H1N1 influenza virus. A meeting attendee suggested that index entries should be added to clarify that H1N1 influenza not specified as the 2009 virus is classified to the seasonal influenza codes. Modifications were proposed for ICD-10-CM influenza codes as well (see ICD-10-CM Proposals below).

Novel influenza A is a nationally reported disease and includes all human infections with influenza A viruses that are different from currently circulating human influenza viruses. The 2009 pandemic influenza is now regularly referred to as 2009 H1N1 influenza, rather than novel H1N1 influenza.

### **ICD-9-CM Diagnosis Addenda**

Proposed ICD-9-CM diagnosis addenda changes were reviewed. Highlights of the proposed revisions include (these are only proposed at this time – they have not been finalized):

- Revision of the term “mental retardation” to indicate “intellectual disabilities” in both code titles and Index entries;
- Revision of Index entries for impaction, intestine, by calculus (560.32);
- Revision of Index entry for metastasis, mesentery, of neuroendocrine tumor (209.74);
- Addition of Index entry for migraine, complicated (346.0);
- Addition of Index entry for tuberculosis, latent (795.5);
- Revision of Index entry for wound, open, anus (863.89);
- Deletion of Index entry for wound, open, complicated (879.7).

## **ICD-10-CM Proposals**

### **Atrial Fibrillation and Flutter**

New ICD-10-CM codes have been proposed for different types of atrial fibrillation and flutter:

- Long-standing persistent atrial fibrillation
- Other persistent atrial fibrillation
- Chronic atrial fibrillation
- Permanent atrial fibrillation
- Other atrial fibrillation
- Unspecified atrial fibrillation
- Typical atrial flutter
- Atypical atrial flutter
- Unspecified atrial flutter

### **Novel Influenza**

Deletion of existing ICD-10-CM subcategories J09.0, Influenza due to identified avian influenza virus, and J09.1, Influenza due to identified novel H1N1 influenza virus, has been proposed, along with creation of a new subcategory for influenza due to identified novel influenza A virus.

### **Place of Occurrence**

It has been requested to expand code Y92.00, Unspecified non-institutional (private) residence as the place of occurrence of the external cause, to include the same level of detail included in subcategories Y90.01 – Y92.8. This would allow identification of the room where the injury occurred even if the type of private residence is not specified.

### **Other Chronic Pain**

A new code for other chronic pain has been proposed in order to be consistent with the structure of the corresponding ICD-9-CM pain codes and capture chronic pain with the pain codes in the Nervous System chapter rather than with a symptom code.

## **Migraines**

A number of revisions to categories G43, Migraine, and G44, Other headache syndromes, have been proposed. These revisions included proposed deletion of the codes for “with and without status migrainosus” in subcategory G43.A, Cyclical vomiting, G43.B, Ophthalmoplegic migraine, and G43.C, Periodic headache syndromes in child or adult, since this distinction is not applicable to the codes in these subcategories. New subcategories in G43 have also been proposed for abdominal migraine and menstrual migraine.

## **Landau-Kleffner Syndrome**

Deletion of code F80.3, Acquired aphasia with epilepsy [Landau-Kleffner], has been proposed, with reclassification of Landau-Kleffner syndrome to codes in subcategory G40.8, Other epilepsy and seizures.

## **Epilepsy and Recurrent Seizures**

Several revisions have been proposed in category G40, Epilepsy and recurrent seizures, to better classify the disorders and syndromes in this category. These revisions include new subcategories for absence epileptic syndrome, juvenile myoclonic epilepsy, Lennox-Gastaut syndrome, and epileptic spasms. In response to questions from the audience, the presenter clarified that the terms “intractable” and “status epilepticus” are different concepts. Status epilepticus implies seizures that last more than 20 minutes, whereas “intractable” refers to seizures that continue despite treatment. The presenter also confirmed that recurrent seizures are equivalent to epilepsy.

## **Epileptic Seizures Related to External Causes**

It has been proposed to revise the title of subcategory G40.5 to better reflect the disorders classified to this subcategory. The inclusion term for epilepsia partialis continua [Kozhevnikof] under subcategory G40.5 was proposed to be deleted because this condition is more appropriately classified to subcategory G40.1, Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures.

## **Vascular Headaches**

Deletion of codes distinguishing vascular headache, not elsewhere classified, as intractable or not has been proposed. If this change is approved, there would be a single code for vascular headache, not elsewhere classified. In most cases, this code will be reported as a secondary diagnosis.

## **Post-traumatic Headache**

It has been proposed to delete the instructional note under subcategory G44.3, Post-traumatic headache, indicating that postconcussional syndrome (F07.81) should be coded first. Revision of the instructional note under code F07.81, Postconcussional syndrome, has also been proposed. This revision would add the phrase “if applicable” to the note indicating that an additional code should be used to identify associated post-traumatic headache. Post-traumatic headache can occur independent of post-concussion syndrome. Also, post-concussion syndrome requires the presence of three symptoms of which headache can be only one symptom.

## **Ventral Hernia**

The World Health Organization (WHO) Update Reference Committee has revised ICD-10 category K43, Ventral hernia, and these changes will take effect for ICD-10 in January 2013. Therefore, corresponding revisions to category K43 have been proposed for ICD-10-CM. These revisions include deletion of the codes within subcategories K43.0, Incisional hernia with obstruction, without gangrene, K43.1, Ventral hernia with gangrene, and K43.9, Ventral hernia without obstruction or gangrene, and retaining codes K43.0, K43.1, and K43.9 as stand-alone codes. The titles of codes K43.0 and K43.1 would be changed to reflect “incisional” instead of “ventral.” The title of code K43.9 would be changed to “Other and unspecified ventral hernia without obstruction or gangrene.” Also, the addition of a number of inclusion terms under the codes in category K43 has been proposed.

## **Methicillin Resistant Staphylococcus Aureus (MRSA) and Drug Resistance**

It has been requested to add unique ICD-10-CM codes for MRSA that are comparable to the codes that were created in ICD-9-CM. Unique codes would be created for sepsis due to MRSA, MRSA infection of unspecified site, MRSA infection in diseases classified elsewhere, and pneumonia due to MRSA. Codes would also be created for sepsis due to Methicillin susceptible Staphylococcus aureus (MSSA), MSSA infection of unspecified site, MSSA infection in diseases classified elsewhere, and pneumonia due to MSSA. Codes would be created for carrier or suspected carrier of MRSA and MSSA and personal history of MRSA infection as well.

Also, the WHO has created and modified ICD-10 codes for drug resistance to antimicrobials and antineoplastic drugs, so this detail must be added to ICD-10-CM. Code Z16 would be converted to a category for resistance to antimicrobial and antineoplastic drugs. The codes in this category would be for use as additional codes to identify the resistance, non-responsiveness and refractive properties of a condition to antimicrobials and antineoplastic drugs. The infection would be coded first. A meeting attendee suggested that, rather than creating distinct MRSA and MSSA codes linked to certain types of infections, it might be preferable to create codes for MRSA and MSSA in category Z16 and capture the specific infection with a second code. It was noted that vancomycin resistant enterococcus is now prevalent, and there will continue to be other drug resistances developing in the future. It might be cumbersome to start creating codes for these drug resistant organisms in all of the applicable chapters where the associated disease process is located, rather than just create a single code in category Z16 and code the associated infection separately.

## **Underdosing**

Revisions have been proposed to the underdosing codes to ensure deletion of codes where the concept of underdosing is not clinically applicable. The codes in the section for poisoning by, adverse effects of, and underdosing of drugs, medicaments and biological substances had been consistently split into codes for poisoning, adverse effects, and underdosing, regardless of the particular drug, and it was noted at the September 2010 C&M Committee meeting that underdosing is not a clinically applicable concept for certain drugs (for example, cocaine). Also, the definitions at the beginning of this section were originally inclusion statements in ICD-10, and it has been recommended to return them to that format. Any further instructions that are necessary regarding these statements could be handled in the *ICD-10-CM Official Guidelines for Coding and Reporting*. It was also proposed that subcategory Z91.1, Patient’s noncompliance

with medical treatment and regimen be deleted. However, meeting attendees opposed this proposed deletion, as it was felt to be important to be able to track reasons why patients may be receiving less than the recommended dosage of a medication. It was suggested that this subcategory be expanded further, to capture caregiver intentional and unintentional underdosing.

### **Orthopedic Deformities**

New codes have been proposed for acquired valgus and varus deformities of the hip, congenital valgus and varus deformities of the hip, and vertical talus deformity.

### **Hidden or Buried Penis**

A unique code for acquired buried penis has been proposed. A code proposal for congenital buried penis was presented at the September 2010 C&M Committee meeting. It was suggested by a meeting attendee that “hidden penis, acquired” be added as an inclusion term. It was also suggested that a default be indicated in the index for buried penis that is not specified as congenital or acquired.

Buried penis is a penis of normal size that lacks an appropriate sheath of skin and is located beneath the integument of the abdomen, thigh, or scrotum. This condition is more common in children, usually presenting in neonates or obese prepubertal boys. However, it can also be seen in adults. Balanitis xerotica obliterans can lead to scarring and tightness of the foreskin or phimosis, resulting in buried penis occurring in adults. The skin of the lower abdomen and pubis descends or sags with age, causing the penis of some men to hide under excess skin and fat deposits. Marginal cases may not be diagnosed until adulthood, when increased fat deposition accentuates the problem in patients who may not be considered obese.

### **Glasgow Coma Scale**

A new subcategory for capturing the total score for the Glasgow coma scale has been proposed. The codes in this subcategory would only be assigned if the individual components of the Glasgow coma scale are not documented, but the total score is documented. If the individual components are documented, existing subcategories R40.21-R40.23 should be used instead of the proposed new subcategory. Meeting attendees raised concerns that one of the codes in the proposed new subcategory would overlap with existing code R40.20, Unspecified coma.

### **Femoroacetabular Impingement**

New codes have been proposed for femoroacetabular impingement. The 7<sup>th</sup> character would identify the specific type of lesion (cam or pincer) as well as whether a labral tear or hip arthritis was present. Multiple codes should be assigned if more than one of the 7<sup>th</sup> characters applies.

Femoroacetabular impingement develops in young patients and is thought to contribute to the ultimate development of osteoarthritis of the hip. Femoroacetabular impingement occurs when there is a recurrent abutment of the anterolateral femoral head and neck upon the anterolateral rim of the acetabulum. It can be associated with tears of the acetabular labrum. The lesions are classified as femoral (cam) or acetabular (pincer) deformities, and both may occur simultaneously.

### **Dehiscence of Amputation Stump**

A unique code for dehiscence of amputation stump has been proposed. While it is a type of disruption of an operation wound, it is also a complication of an amputation. An Excludes1 note for the new code would be added under existing code T81.31, Disruption of external operation (surgical) wound, not elsewhere classified.

### **Benign Shuddering Attacks**

A new ICD-10-CM code for benign shuddering attacks has been requested. This condition currently has a unique code in ICD-9-CM. Benign shuddering attacks are a paroxysmal nonepileptic condition in infants and toddlers. They may resemble seizures.

### **Pulmonary Conditions**

New codes have been proposed for alveolar proteinosis, pulmonary alveolar microlithiasis, unspecified pulmonary fibrosis, idiopathic pulmonary hemosiderosis, and other interstitial pulmonary diseases with fibrosis in diseases classified elsewhere.

### **Complications of Genitourinary Devices, Implants and Grafts**

Revisions have been proposed in category T83, Complications of genitourinary prosthetic devices, implants and grafts, to bring these codes up-to-date with current urological terminology and medical practice. Inclusion terms under codes in subcategory T85.1, Mechanical complication of implanted electronic stimulator of nervous system, have also been proposed to clarify the devices that are classified to these codes.

### **Posterior Reversible Encephalopathy Syndrome (PRES) and Cerebral Vasoconstriction**

Unique codes have been proposed for acute cerebrovascular insufficiency, cerebral ischemia (chronic), posterior reversible encephalopathy syndrome (PRES), reversible cerebrovascular vasoconstriction syndrome, and other cerebrovascular vasospasm and vasoconstriction.

PRES is a syndrome of vasogenic edema that can be associated with eclampsia (and preeclampsia), severe or acute hypertension, immunosuppressants, renal disease, and autoimmune disease. The clinical presentation includes headaches, seizures, vision changes, and encephalopathy. Currently, PRES is indexed to ICD-10-CM code G93.49, Other encephalopathy, but it would be more accurately represented with cerebrovascular diseases. Cerebral vasoconstriction syndromes are different than PRES, though both are reversible and have similar presentations. Patients with these syndromes present with the sudden onset of headache, nausea, vomiting, confusion, and visual change. They may develop focal neurologic deficits. Generalized seizures may be present. Reversible cerebrovascular vasoconstriction can also be associated with eclampsia and preeclampsia, as well as migraine, illicit vasoactive drugs such as Ecstasy, vasoactive medications, and some chemotherapeutic agents.

### **Acute Necrotizing Hemorrhagic Encephalopathy**

New codes for unspecified acute necrotizing hemorrhagic encephalopathy and other acute necrotizing hemorrhagic encephalopathy have been proposed. Acute necrotizing hemorrhagic encephalopathy, also known as acute hemorrhagic leukoencephalitis or acute hemorrhagic

encephalomyelitis, is a relatively rare disorder with a high rate of mortality and morbidity. This condition may be due to postinfectious or post immunization etiologies, but some cases have been associated with ulcerative colitis, septicemia, other underlying conditions, or the etiology may not be determined.

### **Acute Disseminated Encephalitis and Encephalomyelitis (ADEM)**

A new code for unspecified acute disseminated encephalitis and encephalomyelitis has been proposed.

Acute disseminated encephalitis and encephalomyelitis (ADEM) is associated with multiple inflammatory lesions in the white and gray matter of the brain and spinal cord due to autoimmune demyelination. Symptoms are variable and may include coma, seizures, loss of vision, and other cranial nerve palsies. ADEM has occurred after immunizations or infections, but in many cases, no such association can be made.

### **Cerebellar Ataxia in Diseases Classified Elsewhere**

Unique codes have been proposed for systemic atrophy primarily affecting the central nervous system in myxedema and cerebellar ataxia in diseases classified elsewhere.

### **Reclassification of Hemorrhoids**

Reclassification of hemorrhoids and other modifications to these codes have been proposed to comply with changes the WHO has approved for ICD-10. Hemorrhoids will be moved from chapter 9, Diseases of the Circulatory System, to a new category in chapter 11, Diseases of the Digestive System. New codes would be created to identify the stage of the hemorrhoids, and the old terms describing internal and external hemorrhoids, and bleeding, prolapsed, strangulated, and ulcerated hemorrhoids, would be deleted from the Tabular because they are considered outdated. Concerns were expressed by meeting attendees about the deletion of these terms because they are still in common usage in the US.

### **Concussion**

It has been proposed that the codes for concussion with loss of consciousness greater than 24 hours be deleted. In civilian settings, concussion will most often be coded when the duration of loss of consciousness is shorter than 24 hours, as loss of consciousness longer than 24 hours is generally associated with moderate to severe traumatic brain injury. As a result of the increase in traumatic brain injury due to current military conflicts and the increased attention to sports-related concussion, the science in this area is rapidly developing that will be better able to identify meaningful traumatic brain injury parameters in the future, and a more useful classification of these conditions can be derived from that information. When consistent scientific evidence for the parameters (duration of loss of consciousness or other parameters) that affect outcome of brain injury is available, the ICD-10-CM classification can be restructured to meet the needs of meaningful data collection. Meeting attendees suggested that an instructional note be added to indicate that a traumatic brain injury code, and not a concussion code, should be assigned when there is loss of consciousness for greater than 24 hours.

### **ICD-10-CM Diagnosis Addenda**

Proposed ICD-10-CM diagnosis addenda changes were reviewed. These proposed changes include:

- Deletion of notes pertaining the morphology codes derived from the International Classification of Diseases for Oncology (ICD-O);
- Deletion of note at the beginning of the section titled “Newborn affected by maternal factors and by complications of pregnancy, labor, and delivery (P00-P04);
- In the section titled “Poisoning by, adverse effects of and underdosing of drugs, medicaments and biological substances (T36-T50),” replacement of the “use additional code” note with a note that states “use additional code to specify the effects of the poisoning,” and addition of an Excludes note for adverse effects of correct substance properly administered;
- Addition of Index entries for specified aneurysm sites;
- Deletion of outdated nonessential modifiers for the Index entry for the main term “pneumonia.”

A meeting attendee objected to deletion of the note in the Newborn section, whereas other commenters noted that if this note is retained, the language would need to be revised because the current language appears to conflict with the official coding guidelines concerning the coding of conditions that have been ruled out.

Meeting attendees also recommended that the proposed Excludes note in the Poisoning section should be a “code first” note in order to maintain consistency with existing coding rules and guidelines pertaining to the sequencing of the nature of the adverse effect and the causal agent.

## Procedures

### ICD-9-CM Proposals

#### **Cardiac Valve Replacement: Transcatheter Aortic, Transapical Aortic, and Transcatheter Pulmonary**

New codes have been requested for transcatheter replacement of the aortic and pulmonary valve. Balloon valvuloplasty is an integral part of this procedure, so it would not be coded separately. In transcatheter heart valve replacement, the native valve is destroyed in situ and the new valve is implanted on top of its remains, replacing the native valve's structure and function. Currently, the transcatheter technique can be used to replace the aortic and pulmonary valves. There are two approaches to transcatheter aortic valve replacement: endovascular and transapical. The endovascular approach may sometimes be documented as percutaneous. Unique codes for these two approaches have been requested.

For aortic valve replacement using an endovascular approach, access is obtained through the femoral artery at the groin. A balloon valvuloplasty catheter is advanced through the aorta and positioned over the diseased aortic valve. Balloon valvuloplasty is then performed, and then a delivery catheter is positioned across the native valve and the new bioprosthetic valve is expanded in place, crushing the native valve beneath it. In the transapical approach, a small thoracotomy is made in the left 5<sup>th</sup> or 6<sup>th</sup> intercostals space. The apex of the heart is opened, and guidewires and catheters are advanced up through the left ventricle to reach the diseased aortic valve. Balloon valvuloplasty and implantation of the new bioprosthetic valve are performed.

Transcatheter pulmonary valve replacement is typically performed in patients with certain congenital heart anomalies, such as pulmonary atresia, where a conduit can be constructed on the outside of the heart, bypassing the diseased pulmonary valve. In these instances, the valve being replaced is not at its normal anatomic location, but rather, it is within the previously constructed right ventricle-to-pulmonary artery conduit. For pulmonary valve replacement, the approach is endovascular. Access is typically obtained via the femoral vein at the groin. A catheter is advanced into the right ventricle and is advanced into the previously created conduit and positioned over the existing valve within the conduit. Balloon valvuloplasty is performed, then the delivery catheter is positioned across the diseased pulmonary valve and the new bioprosthetic valve is expanded in place, crushing the existing valve beneath it.

Meeting attendees suggested that common abbreviations for transcatheter heart valve replacements be added as inclusion terms under the proposed new codes. Transcatheter aortic valve replacement may be referred to as TAVI or TAVR, and transcatheter pulmonary valve replacement may be referred to as TPVI or PPVI.

#### **PTCA/Atherectomy: Proposed Revision of Code 00.66**

A unique code for transluminal coronary atherectomy has been requested. If both a percutaneous transluminal coronary angioplasty and transluminal coronary atherectomy are performed, two codes would be assigned. Coronary angioplasty and atherectomy are not synonymous, but

currently both procedures are classified to the same code. Percutaneous transluminal coronary angioplasty is a minimally invasive, catheter-based procedure to open up blocked coronary arteries, allowing blood to circulate unobstructed to the heart muscle. A balloon is used to compress plaque against the artery wall. Atherectomy is a minimally invasive, catheter-based procedure to remove plaque from arteries and is useful in cases where the plaque is very hard due to calcification or plaque has built up in a coronary artery bypass graft. Atherectomy may be performed instead of, or in conjunction with, balloon angioplasty. Stent insertion may also be performed with an atherectomy.

An atherectomy catheter, which has either a high-speed rotating device (“burr”) or a sharp blade on the tip, is used to remove the plaque. The burr grinds the plaque into minute particles and the blade shaves the plaque away. The types of mechanical atherectomy are rotational, directional, and transluminal extraction. Rotational atherectomy uses a high speed rotating shaver to grind up plaque. Directional atherectomy is no longer commonly used. It involves scraping plaque into an opening in one side of the catheter. Transluminal extraction coronary atherectomy uses a device that cuts plaque off vessel walls and vacuums it into a bottle. It is used to clear bypass grafts. Excimer laser catheters may also be used to pulverize plaque in a similar process referred to as laser atherectomy or laser angioplasty.

Meeting attendees suggested that consideration be given to splitting the non-coronary angioplasty/atherectomy codes as well. It was also suggested that an instructional note indicating that any stent insertion should be coded as well be added under the proposed new code.

### **Temporary Therapeutic Endovascular Occlusion of Vessel**

A new code for temporary therapeutic endovascular occlusion of vessel has been proposed. The NeuroFlo™ catheter is a potential treatment for victims of ischemic stroke who have not responded to other forms of treatment. This procedure is a minimally invasive form of temporary vascular occlusion. The catheter is inserted through the femoral artery and into the descending aorta, where it uses balloons to partially restrict blood flow, diverting flow from the lower extremities to the cerebral collaterals.

Concerns were expressed that the proposed code title may not clearly differentiate the intended use of this code from other codes in the same category, such as code 39.72, Endovascular embolization or occlusion of head and neck vessels. It was noted that code 39.72 is intended for total occlusion, whereas the proposed new code is for partial occlusion. However, this distinction is not clear from the code titles.

### **Insertion of Multiple Coils for the Embolization or Occlusion of Head or Neck Vessels**

New codes to identify the number of coils inserted during an embolization or occlusion procedure in vessels of the head or neck have been requested. CMS recommended that new codes describing the number of coils inserted not be created. They noted that there are many ways to capture the parameters of these procedures (number of coils inserted, exact size or shape of the aneurysm, exact location of the aneurysm, delivery system of the coils), and all are good

from a study perspective. However, CMS questioned the value of adding codes for the number of coils to the database.

Because the size and type of aneurysms vary considerably, the number of coils placed varies considerably, too. The number of coils placed varies with the aneurysm's length, width, and shape. Depending on the size of the aneurysm, the number of coils placed may range from 3 coils for simple aneurysms up to 70 coils for giant aneurysms. The placement of additional coils adds greatly to the clinical complexity of the procedure, particularly in terms of duration of the procedure, difficulty, and risk to the patient. It is not currently possible to relate the number of coils placed to clinical outcomes, long-term durability, and effectiveness, and quality measures in the treatment of aneurysms because the level of detail collected today lacks this element of specificity.

### **Implantation of Antimicrobial Envelope**

A unique code for implantation of anti-microbial envelope was requested. CMS recommended not creating a new code, as the use of supplies such as this envelope is not typically captured in ICD-9-CM codes.

With the widespread use of cardiovascular implantable electronic devices, such as pacemakers and implantable defibrillators, there has been an associated rise in complications, including infection. Fabric pouches, into which the generators are placed prior to insertion, have been used for several decades to reduce device migration, and local and systemic prophylactic antibiotics have been used to reduce post-implantation infection. A newer type of fabric pouch is composed of fibers that contain embedded antibiotics. The antibiotics are released over a number of days following implantation in order to provide continuous local antibiotic activity in the immediate postoperative period.

### **Implantable Ischemic Detection System**

New codes have been requested for insertion or replacement of implantable cardiovascular monitoring system, insertion of cardiovascular implantable monitoring device, and revision or removal of implantable monitoring device. CMS recommended not creating new codes because this device is still in clinical trials and does not yet have FDA approval.

The AngelMed-Guardian<sup>®</sup> implantable ischemic detection system is designed to provide early detection and patient monitoring for ischemic events in ambulatory patients. The purpose of this device is to provide a means of detecting rapidly progressive and significant ST shifts in EKGs and other cardiac irregularities and alert the patient to seek medical attention when a threshold has been met or exceeded. The programmable implantable monitoring device is implanted under the skin in the left pectoral region in the same manner as a single chamber pacemaker. It attaches to a bipolar pacemaker lead inserted transvenously and is implanted into the apex of the right ventricle of the heart.

### **Insertion of Aqueous Drainage Shunt**

A new code has been requested for insertion of sub-conjunctival aqueous drainage shunt. Inclusion terms would be added for anterior chamber drainage device, eye valve implant, and filtration canal shunt or device. The Ex-PRESS™ Mini Glaucoma Shunt is designed to relieve intraocular pressure in patients with glaucoma who have failed medical and surgical interventions. The device consists of a stainless steel tube whose purpose is to capture aqueous fluid from the anterior chamber of the eye and transport the fluid to the distal end and out of the device. From there the fluid moves into the sub-conjunctival space to form a bleb for absorption into the lymph and blood vessels around the eye. The device is implanted under a partial-thickness scleral flap.

A meeting attendee suggested deleting the word “sub-conjunctival” from the proposed code title so that all types of aqueous drainage shunts could be classified to this code.

### **Four-Port Spinal Cord Neurostimulator**

A new code has been requested for insertion or replacement of multiple array (more than two) rechargeable neurostimulator pulse generator. As an alternative, CMS recommended revising existing code 86.98 to state “multiple array (two or more)” instead of “dual array.”

A four-port spinal cord neurostimulator will soon be available. It will likely be used in a different patient population than the two port/channel devices. A number of patients refractory to other treatments have pain that migrates from one site to another. In these patients, dual array neurostimulators are not optimal because of the variety of places pain can migrate, and a second device may need to be implanted. Implantable pulse generators with four ports are able to provide relief over a much wider area, and an array can easily be added when necessary.

### **Cardiac Lead Extraction**

A new code has been requested for complex transvenous cardiac lead extraction, atrial and/or ventricular lead(s) [electrode] with device assistance. CMS recommended not creating a code for complex lead extractions.

Lead extraction can involve varying degrees of difficulty. The more complex lead extraction procedures require the assistance of specialized devices and utilization of additional time and resources. Creation of the requested procedure code would distinguish more resource-intensive complex lead extraction procedures from simple lead revision or removal procedures that require no special tools or resources.

### **Oxidized Zirconium Ceramic Hip Bearing Surface**

A new code has been requested to capture the oxidized zirconium ceramic bearing surface in hip replacements. CMS recommended continuing to assign code 00.77, Hip bearing surface, ceramic-on-polyethylene, for oxidized zirconium ceramic hip bearing surface instead of creating a unique code. Oxidized zirconium is technically a layer of zirconia ceramic on a metal head.

### **Insertion of Sling/Tape for Correction of Urinary Stress Incontinence**

A unique code has been proposed for insertion of sling/tape for correction of urinary stress incontinence. Meeting attendees questioned why code 59.4, Suprapubic sling operation, couldn't be used for this procedure. If there is a distinct difference between the procedure described in the code proposal and the procedure classified to code 59.4, modifications would need to be made to code 59.4 to make this distinction clearer.

Minimally invasive procedures for treatment of stress incontinence involve the use of artificial mesh tapes or slings to stabilize the bladder and/or apply pressure to the urethra. Depending on the selected approach, the mesh is typically inserted through a pair of suprapubic incisions or through small incisions in the perineum. The slings may be self-stabilizing or anchored by sutures, and may be compressive or non-compressive, depending on the specific mesh and approach chosen by the surgeon.

### **Sleeve Gastrectomy**

New codes have been requested for laparoscopic and other vertical (sleeve) gastrectomy. A sleeve gastrectomy, also called vertical sleeve gastrectomy, involves the removal of the left side of the stomach or the greater curvature. It can be performed using an open or laparoscopic approach. The remaining portion of the stomach is approximately the size and shape of a banana. This operation is less complex than the gastric bypass or duodenal switch because "rerouting" or reconnecting of the intestines is not performed. Unlike the laparoscopic banding procedure, there is no implantation of an artificial device inside the abdomen in a sleeve gastrectomy. The sleeve gastrectomy can be performed as a definitive (one-stage) procedure, or as the first part of a two-stage procedure. In the two-stage procedure, the sleeve gastrectomy is performed first, allowing the patient to lose significant weight prior to undergoing the second procedure (a gastric bypass or duodenal switch) months later.

### **Electromagnetic Navigation Bronchoscopy**

A new subcategory with several new codes for electromagnetic tip tracked procedures has been requested. CMS recommended adding an inclusion term for this procedure under existing codes 33.22, Fiber-optic bronchoscopy, 33.24, Closed [endoscopic] biopsy of bronchus, and 33.27, Closed endoscopic biopsy of lung, instead of creating new codes. However, there was some confusion during the meeting as to whether bronchoscopy is a necessary component of electromagnetic navigation procedures. The written information provided with the code proposal indicated that electromagnetic navigation is an aid to bronchoscopy that provides the ability to rapidly reach lesions in the periphery of the lung, but the presenter indicated a bronchoscopy is not necessarily performed with this procedure.

### **Ultrasound-enhanced Thrombolysis**

A new code for intravenous delivery of thrombolytic agents with the use of therapeutic ultrasound has been requested. CMS recommended not creating a new code, but instead,

continuing to use existing codes for therapeutic ultrasound and injection or infusion of thrombolytic agent.

Ultrasound-enhanced thrombolysis is an approach to increasing the thrombolytic efficacy of thrombolytics such as tissue plasminogen activator in the treatment of strokes. Ultrasound energy can be applied to mechanically lyse blood clots. When the acoustic energy from ultrasound is directed at the site of a blood clot, a radiation force is created that produces micro-streaming of the blood fluids at the site of the clot. It is believed that this effect enhances the penetration of endogenous or exogenous thrombolytics such as tissue plasminogen activator into the clot itself, thus accelerating the clot lysis process. To administer this therapy, tissue plasminogen activator is delivered intravenously as a continuous infusion while the ultrasound is administered externally through the skull.

### **External Ventricular Drainage**

A new subcategory for ventriculostomy has been proposed, with new codes for insertion or replacement of external ventricular drain and intracranial ventricular shunt or anastomosis. The title of code 02.39 would be revised to state “ventricular shunt to extracranial site NEC.” The inclusion term for “replacement of ventricular catheter” under code 02.42, Replacement of ventricular shunt, would be deleted. These modifications were requested to clarify the proper coding of various procedures involving ventricular drainage by the use of a catheter or shunt. A meeting attendee suggested adding an Excludes note for code 01.09, Other cranial puncture, under the proposed new code for insertion or replacement of external ventricular drain.

### **Embolization of Uterine Artery**

New codes for uterine artery embolization were proposed. Two options were presented: creation of a single code for uterine artery embolization that would include that with and without coils and creation of two codes to distinguish uterine artery embolization with and without the use of coils. CMS recommended creation of two codes. Creation of unique codes is intended to eliminate ongoing confusion regarding the proper coding of uterine artery embolization.

### **Open Left Atrial Appendage Occlusion with “U” Fastener Implant**

It has been proposed to revise code 37.36 to include occlusion of the left atrial appendage with a “U” fastener. The revised code title would state “Excision, destruction, or occlusion of left atrial appendage.” An inclusion term would be added indicating that this code includes procedures using a silicone “U” fastener. A meeting attendee asked how the revised code differs from code 37.90, Insertion of left atrial appendage device. It was noted that code 37.90 involves putting a device inside the atrial appendage, whereas the “U” fastener that would be included in code 37.36 is a clip placed on the outside of the atrial appendage.

The occlusion, isolation or removal of the left atrial appendage has been used as an alternative to oral anticoagulation therapy for patients with atrial fibrillation. A new device consists of a delivery tool and implantable silicone fastener. The fastener consists of a series of evenly spaced individual connectors embedded in a silicone housing which has a “U” shaped connector at one

end of the delivery jaws. Patients having exclusion of the left atrial appendage via this device would be undergoing a concomitant open cardiac surgical procedure.

### **Percutaneous Left Atrial Appendage Exclusion with Femoral and Epicardial Access**

A unique code has been requested for percutaneous exclusion of left atrial appendage, with a corresponding revision to code 37.36 to limit this code to open or thoracoscopic excision, obstruction or destruction of left atrial appendage. CMS recommended revising existing code 37.36 to state “Excision, destruction, or occlusion of left atrial appendage.” The revised code would include occlusion of the left atrial appendage via percutaneous approach. In this procedure, following femoral access, a guide wire with a small magnet is placed in the left atrial appendage and an occlusion balloon is advanced over the guide wire to the atrial appendage. Using transesophageal echocardiography, a pericardial access site is made and a guide cannula is placed into the pericardial sac. Another magnetic guide wire provides the delivery of the suture delivery device to the base of the left atrial appendage. Once in position, the suture snare is closed.

### **Ultrasonic Wound Debridement**

Changes to Index and Tabular entries have been requested to allow ultrasonic wound debridement to be captured by code 86.22, Excisional debridement of wound, infection, or burn, instead of code 86.28, Nonexcisional debridement of wound, infection, or burn. CMS recommended that ultrasonic wound debridement should continue to be captured under code 86.28 and suggested adding Index and Tabular entries to make that clearer. Several physicians in attendance at the C&M Committee meeting felt ultrasonic wound debridement does excise tissue and could be appropriately classified as excisional debridement.

Contact ultrasonic wound debridement systems are ultrasonically energized instruments and utilize water irrigation. The ultrasonic probe is brought into direct contact with the tissue targeted for debridement. The probe’s vibratory motion acts as a micro jackhammer, creating local cavitation and hydrodynamic effects that dissect tissue at the point of contact. It was noted that ultrasonic wound debridement systems are not typically used to excise block elements that can be available for examination, but to pulverize (ablate) devitalized tissue and debris into small particles for removal by irrigation fluid.

### **Hydro-surgery/Versajet Debridement**

A unique code for debridement using hydro-surgery has been requested. CMS recommended not creating a unique code, but continuing to capture this procedure with code 86.28, Nonexcisional debridement of wound, infection, or burn. The Versajet™ Hydro-surgery System is a high-pressure, high velocity water jet that assists in the removal of devitalized tissue in the treatment of certain wounds. This system uses pressurized streams of sterile fluid to ablate and remove tissue and foreign matter from wounds and to remove material in a variety of surgical applications.

## **Nonexcisional Debridement**

Since code 86.28 is located in a subcategory for excision or destruction of lesion or tissue of skin and subcutaneous tissue, new codes for reporting nonexcisional debridement of the deeper tissue layers (soft tissue, fascia, muscle, and bone) have been requested. CMS recommended that new codes not be created, since nonexcisional debridement of the deeper tissues of a wound, infection, or burn is part of the care of pathology in the integumentary system and is appropriately classified to code 86.28.

## **Cerebral and Somatic Oximetry**

New codes for tissue oxygen saturation monitoring using near-infrared spectroscopy and cerebral oxygen saturation monitoring using near-infrared spectroscopy have been requested. CMS recommended not creating a unique code and assigning code 38.23, Intravascular spectroscopy, for this technology. Meeting attendees recommended that either the title of this code be expanded, since the technology described in this code proposal is not intravascular, or code 89.39, Other nonoperative measurements and examinations, be considered as an alternative.

Near-infrared spectroscopy (NIRS) is a noninvasive, optical method for continuous, real-time monitoring of tissue oxygenation. The NIRS technique is based on the transmission and absorption of near infrared light as it passes through tissue. Oxygenated and unoxygenated hemoglobin have different absorption characteristics, allowing the system to reflect the oxygen saturation of the target tissue. Because near-infrared light penetrates tissue relatively easily, the sensor reflects the saturation of deep tissues rather than surface capillary beds. NIRS was first used to perform cerebral oximetry in cardiac surgery arena, but has subsequently been used to monitor the adequacy of tissue perfusion on somatic sites such as muscle, kidneys, and the intestines, and to provide an early alert to unexpected hemodynamic changes.

## **Ultrasound Assisted Lysis of Intravascular Thrombus**

New codes have been requested for ultrasound assisted lysis of arterial and venous thrombus, endovascular approach. Options of either creating a single code or creating two codes to differentiate arterial and venous thrombus were presented. CMS recommended not creating new codes, but instead, using existing codes in subcategory 00.0, Therapeutic ultrasound, to identify the ultrasound technology and code 99.10, Injection or infusion of thrombolytic agent, to describe the intravenous delivery of thrombolytics.

A new catheter-based system for thrombolysis combines a drug delivery catheter with an ultrasound core wire to augment drug-induced thrombolysis. Ultrasound makes the clot more porous and therefore able to absorb more lytic agent than clots that have not been exposed to sound waves.

## **ICD-9-CM Procedure Addenda**

Proposed ICD-9-CM procedure addenda changes were reviewed. Highlights of the proposed revisions include (these are only proposed at this time – they have not been finalized):

- Addition of inclusion terms for “that by brainstem auditory evoked potentials, electroencephalogram, electromyogram, motor evoked potentials, nerve conduction study, somatosensory evoked potentials, and transcranial Doppler” under code 00.94, Intra-operative neurophysiologic monitoring;
- Addition of Index entry for Cleft lift (86.21);
- Addition of Index entries for Angioplasty, percutaneous transluminal (balloon), basilar, precerebral (99.61) and intracerebral (00.62);
- Addition of Index entry for Infusion, lymphocyte (99.09).

## **ICD-10-PCS Proposals**

### **Ankle, Hip and Knee Joint Replacements**

It has been proposed to create new ICD-10-PCS device values to differentiate between cemented and uncemented synthetic joint replacements. Several options were presented. New device values specifying cemented implants for hip, knee, and ankle joint could be added in table 0SR. Uncemented implants would be specified with the existing device value “J” (Synthetic Substitute). Another option would be to add two new device values, one specifying cemented implants and one specifying uncemented implants, with existing device value “J” for use when the documentation is insufficient to determine whether the synthetic joint substitute is cemented or uncemented. CMS recommended this option. However, an additional option was suggested by meeting attendees, whereby new device values would be added specifying cemented and uncemented implants, but device value “J” wouldn’t be offered as an alternative if the documentation is insufficient to support this level of specification. Meeting attendees felt that offering an “unspecified” device value choice would go against ICD-10-PCS principles intended to minimize non-specific code options.

### **Interspinous Process Internal Fixation Procedures**

The addition of ICD-10-PCS values to the “Insertion” tables that would distinguish between dynamic stabilization and static distraction interspinous process internal fixation devices of the spine has been proposed. In one proposed option, new ICD-10-PCS qualifier values for vertebral joint body parts that specify Interspinous Process, Dynamic Stabilization and Interspinous Process, Static Distraction. No changes would be made to existing qualifier value “2,” Interspinous Process, which would allow this value to be used as the default when the documentation doesn’t specify the type of interspinous process device used. Another option would modify existing qualifier value “2” to specify Interspinous Process, Dynamic

Stabilization, and create a new qualifier value for Interspinous Process, Static Distraction. In this option, no default would be provided.

### **Proposed Change to Spinal Fusion Procedures**

It has been proposed that ICD-10-PCS device values for the intervertebral joint body parts that specify internal fixation device as the means of accomplishing spinal fusion be deleted from the ICD-10-PCS “Fusion” tables. The rationale is that ICD-10-PCS guidelines indicate the device value for a fusion procedure should be coded to the primary technique for accomplishing the fusion. Clinical opinion is that internal fixation is never the primary technique, and therefore, offering this choice may result in fusion procedures being coded incorrectly.

### **Implantable Meshes**

The creation of ICD-10-PCS device values that differentiate between nonautologous tissue of human origin and nonautologous tissue of non-human origin for the root operation “Supplement” in the Anatomical Regions, Urinary and Female Reproductive body systems has been proposed. Device value “8,” Zooplasmic Tissue, already exists in other body systems, so this proposal would simply involve adding this value to body systems “T” (Urinary), “U” (Female Reproductive), “W” (General Anatomical Regions), and “Y” (Anatomical Regions, Lower Extremities).

### **Intraoperative Nerve Measurement and Monitoring**

It has been proposed that the ICD-10-PCS body part value “Peripheral Nervous” and the approach value “Percutaneous” be added to the Measuring and Monitoring section.

### **Regional Brain Oxygen Saturation Monitoring Using Near-Infrared Spectroscopy**

The addition of ICD-10-PCS values in the Monitoring table that would distinguish invasive intracranial oxygen saturation monitoring from non-invasive external monitoring of regional brain oxygen saturation using near-infrared spectroscopy. One option involves extending the existing ICD-10-PCS values in the Monitoring table to include “External” approach in the 5<sup>th</sup> character and “No Qualifier” in the 7<sup>th</sup> character, for external oxygen saturation monitoring as well as pressure and temperature monitoring. Another option would be to extend the existing values to include “External” approach in the 5<sup>th</sup> character and “No Qualifier” in the 7<sup>th</sup> character, but only apply the 6<sup>th</sup> character function “Saturation” (and not “Pressure” and “Temperature”), to specify regional brain and intracranial oxygen saturation monitoring using an external approach.

### **Regional Somatic Saturation Monitoring Using Near-Infrared Spectroscopy**

The creation of ICD-10-PCS values in the Monitoring table for monitoring oxygen saturation using near-infrared spectroscopy (NIRS) in the soft tissue of the body regions of “Gastrointestinal,” “Skin and Breast,” “Subcutaneous Tissue,” and “Musculoskeletal” has been proposed. In one option, existing values in the Monitoring table would be extended to specify “External” approach in the 5<sup>th</sup> character and “Saturation” in the 6<sup>th</sup> character, for NIRS of existing body regions “Gastrointestinal” and “Urinary.” New physiological system values would

be created for “Musculoskeletal,” “Skin and Breast,” and “Subcutaneous Tissue,” and existing values to specify “External” approach and “Saturation” would be added for these body regions. In another option, a new physiological system value “Anatomical Regions” would be created, and existing values in the Monitoring table would be extended to specify “External” approach in the 5<sup>th</sup> character and “Saturation” in the 6<sup>th</sup> character, for NIRS oxygen saturation monitoring of all anatomical regions other than the brain and circulatory system.