



Summary of March 2006 ICD-9-CM Coordination and Maintenance Committee Meeting

The ICD-9-CM Coordination and Maintenance Committee, cosponsored by the National Center for Health Statistics (NCHS) and the Centers for Medicare and Medicaid Services (CMS), met on March 23-24, 2006 in Baltimore, MD. Donna Pickett, RHIA, from NCHS, and Patricia Brooks, RHIA, from CMS, cochaired the meeting.

Proposed modifications to ICD-9-CM were presented and are summarized below. 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 minutes and code proposals posted on the CMS and NCHS websites. Diagnostic code proposals and the minutes from the diagnosis portion of the meeting are posted on the NCHS website and can be accessed at the following link:

www.cdc.gov/nchs/about/otheract/icd9/maint/maint.htm. Procedure code proposals and the minutes 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.

Once they are approved by CMS and NCHS, some changes may go into effect with discharges on or after October 1, 2006, whereas others may not go into effect until October 1, 2007.

Suggestions for diagnosis code proposals for consideration at a future Coordination and Maintenance Committee may be emailed to Donna Pickett at dfp4@cdc.gov or mailed to: National Center for Health Statistics, ICD-9-CM Coordination and Maintenance Committee, 3311 Toledo Road, room 2402, Hyattsville, Maryland 20782.

Suggestions for procedure code proposals to be considered at a future Coordination and Maintenance Committee, may be emailed to Pat Brooks at PBrooks@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.

The next meeting of the ICD-9-CM Coordination and Maintenance Committee is scheduled for September 28-29, 2006 and will be held at the CMS building in Baltimore, MD. New proposals for inclusion on this agenda must be received by **July 28, 2006**. Anyone wishing to have a new code considered for implementation on April 1, 2007 must make this request at the September meeting and justify the need for expedited implementation to capture new technology.

Diagnoses

Chronic Total Occlusion of Coronary Artery

New code(s) have been proposed to capture chronic total occlusion of coronary artery. Two options were presented: create one new code for chronic total occlusion of coronary artery in category 414, Other forms of chronic ischemic heart disease, which would be used in addition to one of the existing codes for coronary atherosclerosis (414.00-414.07); or restructure the atherosclerosis codes to provide for two subcategories for atherosclerosis with and without chronic total occlusion. The presenter noted that one of three patients with coronary artery disease would typically have a chronic total occlusion. It is possible to have atherosclerosis with chronic total occlusion in one vessel and atherosclerosis without chronic total occlusion in another vessel.

A chronic total occlusion of the coronary artery is a complete blockage that has been present for an extended duration (typically, greater than three months). Collateral flow may avoid myocardial infarction, despite the chronic total occlusion. However, this flow would not likely be able to increase much during physical activity, so activity would be limited. There is increased risk of myocardial infarction or death. However, correcting this occlusion is more challenging than for other types of coronary stenosis because of the difficulty in passing a guidewire through a chronic total occlusion.

Audience members raised concerns about the availability of medical record documentation that specifically identifies a chronic total occlusion. Since coding professionals cannot code from diagnostic tests in the hospital inpatient setting, the physician would need to clearly document the presence of a chronic total occlusion. It was recommended that a default be provided when a total occlusion (without myocardial infarction) is documented but is not specified as acute or chronic. An attendee noted that the “use additional code” note proposed under subcategory 414.0 in the first option should state “use additional code to identify chronic total occlusion of coronary artery if present (414.2).

Non-Hodgkin’s Lymphoma

Several new codes have been proposed to identify specific subtypes of non-Hodgkin’s lymphoma. There are over thirty subtypes of non-Hodgkin’s lymphoma, but all types are currently classified to a single non-specific code. One of the new codes would be located in category 202, Other malignant neoplasms of lymphoid and histiocytic tissue and the other codes would be located in category 200. Category 200 is currently limited to lymphosarcomas and reticulosarcoma, but the description would be expanded to state “and other specified malignant tumors of lymphatic tissue.” Non-Hodgkin’s lymphoma is currently indexed to code 202.8x. However, there is insufficient space to locate all of the proposed codes in category 202. No new code for unspecified non-Hodgkin’s lymphoma was proposed, and it would continue to be classified to code 202.8x to maintain consistency with longitudinal data.

Audience members expressed concerns about not creating a new code to capture unspecified non-Hodgkin's lymphoma and classifying it to a code that is in a different category than the proposed codes for the specific subtypes.

Normal Pressure Hydrocephalus (NPH)

A new code has been proposed for idiopathic normal pressure hydrocephalus in category 331, Other cerebral degenerations. Normal pressure hydrocephalus (NPH) is a treatable disorder of gait impairment, subcortical dementia, and urinary urgency and incontinence. NPH results from a disruption in the cerebrospinal fluid circulation leading to gradual enlargement of the ventricles. Secondary normal pressure hydrocephalus is due to an underlying disease process such as subarachnoid hemorrhage, traumatic brain injury, cerebral infarction, and meningitis, and would continue to be classified to code 331.3, Communicating hydrocephalus. In patients without known etiologies (two-thirds of all cases), it is called idiopathic normal pressure hydrocephalus.

The treatment for idiopathic normal pressure hydrocephalus is surgical diversion of the cerebrospinal fluid. This is accomplished by implanting a shunt to drain cerebrospinal fluid either from the intracranial ventricular system or the lumbar subarachnoid space to a distal site, such as the peritoneal or pleural cavity or the venous system, where the cerebrospinal fluid can be absorbed.

It was suggested that perhaps code 331.3 should be expanded to create a unique code for idiopathic normal pressure hydrocephalus rather than using up a four-digit code in category 331. Instructions will need to be provided regarding whether the manifestations, such as dementia or urinary incontinence, should be coded separately or would be considered integral to the diagnosis of normal pressure hydrocephalus.

Counseling for Natural Family Planning

Codes have been proposed for natural methods of birth regulation both as a form of birth control management (category V25) and procreative management (category V26). Two options were presented, with the only difference being the creation of one vs. two codes in category V25. In the first option, one code for counseling and instruction in natural method birth control would be created in subcategory V25.0, Encounter for contraceptive management, General counseling and advice. In the second option, an additional code for natural method of family planning would be created in subcategory V25.4, Surveillance of previously prescribed family planning methods. This would allow encounters for general counseling and instruction in natural method of family planning (usually provided in small groups) to be distinguished from encounters focused on the individual couple. In both options, one code for procreative counseling and advice with natural method of birth regulation would be created in subcategory V26.4, Procreative management, General counseling and advice.

A question was raised as to how an encounter for counseling where multiple options for birth regulation are being considered would be coded. It was recommended that input be sought from the American College of Obstetricians and Gynecologists and any other

relevant physician specialty organizations in order to ensure consensus before implementing the proposal.

Endosseous Dental Implant Failure

A new subcategory for endosseous dental implant failure has been proposed in category 525, Other diseases and conditions of the teeth and supporting structures. New codes would be created in this subcategory for osseointegration failure of dental implant, post-osseointegration biological failure, post-osseointegration biological failure of dental implant, and post-osseointegration mechanical failure of dental implant.

A dental implant is an artificial tooth root that holds a replacement tooth or bridge. There are two types of implants currently in use, endosteal and subperiosteal. Endosteal implants (the more common type) are implanted in the jaw bone. Each implant holds one or more prosthetic teeth. Subperiosteal implants are placed on top of the jaw with the metal framework's post protruding through the gum to hold the prosthesis. Subperiosteal implants are used for patients who are unable to wear conventional dentures and who have minimal bone height.

A small number of implants fail. There are types of failure, pre-osseointegration and post-osseointegration. Pre-osseointegration failure occurs when the implant fails to achieve integration with the surrounding bone and soft tissue. These failures to osseointegrate are most commonly related to placement of the implant into bone of poor quality (including previously irradiated bone), hemorrhagic complications, and iatrogenic causes. Post-osseointegration failures are either biological or mechanical. Biological failure includes periodontal infection (peri-implantitis), caused by poor oral hygiene, lack of attached gingival, or occlusal trauma caused by not enough support for the forces that the implants were subjected to, such as weak bone, too few implants, poor prosthetic design, and parafunctional habits. Mechanical failure is due to fracture of the implant body itself and any failures of the prosthesis that cause the loss of the implant.

The American Dental Association indicated that they would like the proposed codes to be consistent with the language in the Systematized Nomenclature of Dentistry (SNODENT) and would submit formal comments following the meeting.

Hypoxia of Newborn, Hypoxic Ischemic Encephalopathy and Related Newborn Issues

A proposal from the American Academy of Pediatrics involving code modifications for hypoxia of newborn and hypoxic ischemic encephalopathy was presented at the September 2005 Coordination and Maintenance Committee meeting. A proposal was presented at the March 2006 meeting that was based on the initial proposal, with subsequent input from the American College of Obstetricians and Gynecologists. Since this proposal was slightly different from the original proposal and it was not clear which code modifications the American Academy of Pediatrics and American College of Obstetricians and Gynecologists had reached consensus on, meeting attendees recommended that these two organizations be asked for a complete consensus proposal prior to implementation in order to ensure agreement on the final revisions.

It had been requested that these code modifications be effective October 1, 2006, but it is not clear whether the affected physician specialty organizations could reach final agreement in time for implementation this year.

Family History of Sudden Cardiac Death

A new code has been requested for family history of sudden cardiac death. An instructional note would indicate that family history of sudden cardiac death due to ischemic heart disease is excluded from the new code. Attendees recommended that input on this code proposal be sought from the American College of Cardiology, the Heart Rhythm Society, and other relevant medical societies. Concerns were expressed that “sudden cardiac death” may not have a standard definition. Also, since it was felt that sudden cardiac death was generally due to electrical causes, and not related to ischemic heart disease, the instructional note excluding family history of sudden cardiac death due to ischemic heart disease was clinically appropriate. It was also suggested that it may be possible to survive an episode of sudden cardiac death, if the individual receives immediate medical attention, and therefore, it might be appropriate to create a “personal history” code as well as a family history code. Further clinical input regarding the use of the term “sudden cardiac death” is needed before finalizing this code proposal.

Human Herpesvirus Infections, including Human Herpesvirus 6 (HHV-6) Encephalitis

New codes to identify human herpesvirus 6, human herpesvirus 7, and human herpesvirus 8 have been proposed in a new subcategory (058) titled “other Human herpesvirus.” Two options were presented. The first option aligns the new codes along the type of herpes virus, while the second option aligns them according to the associated clinical condition.

Human herpesvirus 6 (HHV-6) is a beta herpesvirus with two recognized variants, A and B. Primary infection with HHV-6B causes roseola infantum or exanthem subitum, a common childhood exanthema. HHV-6 may reactivate and cause problems in those who are immunosuppressed, individuals with AIDS, or transplant recipients. HHV-6 is extremely neurotropic. It may cause encephalitis and other neurological disorders. In some cases, there may be a connection between HHV-6 and pediatric febrile seizures. Involvement of HHV-6 has been postulated in multiple sclerosis and chronic fatigue syndrome.

Human herpesvirus 7 (HHV-7) is another beta herpesvirus that causes roseola infantum in infants and can reactivate and cause diseases in immunosuppressed individuals.

Other human herpesviruses are classified into the alpha human herpesviruses and the gamma human herpesviruses. The alpha human herpesviruses include herpes simplex virus type 1 and type 2 and varicella-zoster virus. The gamma human herpesviruses include Epstein-Barr virus and human herpesvirus 8 (HHV-8). HHV-8 is also known as Kaposi’s sarcoma-associated herpesvirus and is associated with development of Kaposi’s

sarcoma in immunosuppressed individuals. HHV-8 is also linked to certain lymphomas and other neoplasms.

Corticoadrenal Insufficiency including Hypoaldosteronism

An expansion of code 255.4, Corticoadrenal insufficiency, to create unique codes for glucocorticoid deficiency and mineralocorticoid deficiency has been proposed. Corticoadrenal insufficiency is related to decreased function of the adrenal cortex, which produces cortisol and aldosterone. Decreased production of cortisol results in a glucocorticoid deficiency. This can cause a range of signs and symptoms, including malaise, loss of appetite, orthostatic hypotension, weight loss, anemia, pre-renal azotemia, hyperpigmentation, and hyponatremia. If aldosterone is also affected, hyperkalemia may occur. In more acute cases, agitation, confusion, fever, and abdominal pain may be found, and if untreated, it may progress to coma and death. Diagnosis is confirmed by challenge with adrenocorticotrophic hormone (ACTH) and testing for a lack of response in plasma cortisol level. Levels of ACTH are tested to assess for ACTH dependence. ACTH-dependent glucocorticoid deficiency is caused by dysfunction of the hypothalamus or pituitary gland, or it can result from adrenal suppression due to glucocorticoids. ACTH-independent glucocorticoid deficiency is caused by disordered adrenal function (primary adrenal insufficiency). Primary adrenal insufficiency may be caused by destruction of the adrenal cortex, due to tuberculosis or autoimmune disease, and this is known as Addison's disease. Other genetic and metabolic disorders that may cause primary adrenal insufficiency include amyloidosis, congenital adrenal hypoplasia, and familial glucocorticoid insufficiency.

Mineralocorticoid deficiency results in hyponatremia, hyperkalemia, and mild metabolic acidosis. These can lead to profound weakness and cardiac arrhythmias. It may be caused by combined deficiency of cortisol and aldosterone, so diagnostic testing will usually first exclude this with an ACTH challenge test. Next, testing will check for the aldosterone level, and if this is low, isolated hypoaldosteronism is diagnosed.

Bandemia

A new code for bandemia has been requested. Code 288.6, Elevated white blood cell count (which is a new code effective October 2006) would be expanded to create this code. Bandemia is a type of elevated white blood cell count in which the white blood cell count may be normal, but there is an excess of immature white blood cells (band cells). This is frequently present in cases of bacterial infection.

It was recommended that the code for bandemia be implemented this October in conjunction with the other modifications to category 288. A suggestion was made to add an Excludes note for a diagnosis of infection (to clarify that if the patient has an infection, the appropriate code for the infection should be assigned and not the bandemia code).

Stevens-Johnson Syndrome

Creation of a specific code for Stevens-Johnson has been proposed. Code 695.1, Erythema multiforme, would be expanded to create this code. Stevens-Johnson syndrome is a form of erythema multiforme that affects the mucous membranes of the mouth and eyes. Erythema multiforme involves concentric target or bull's eye lesions, called erythema iris or herpes iris. It may be due to a reaction to a drug, such as penicillin, or to an infection, such as recurrent herpes simplex. Stevens-Johnson syndrome has systemic effects, and can involve the nose and anus, as well as the rest of the gastrointestinal system, and also the heart, lungs, kidneys, and genitals. Hemorrhagic crusts may be noted on the lips. This condition is also known as erythema multiforme major. The severity of Stevens-Johnson syndrome is much worse than erythema multiforme without mucous membrane involvement and can cause death.

It was suggested that erythema multiforme major be added as an inclusion term. A comment was also made indicating that if this condition is due to herpes simplex, guidelines would be needed to address sequencing the infection first.

Long Term Use of Other Drugs

A new code for prophylactic administration of antiestrogen agents has been proposed under subcategory V07.3, Other prophylactic chemotherapy. It was recommended that an Excludes note be added under subcategory V58.6, since that is where other codes for long-term use of medications are located. It was further noted that in a patient with breast cancer, the use of an antiestrogen agent such as Tamoxifen is considered cancer treatment, not prophylactic, and therefore the proposed code would not be appropriate in these instances.

A suggestion was also made to consider broadening the proposed code description to include the use of Lupron for prostate cancer, or else to create a unique code for the use of Lupron.

Restless Legs Syndrome

A unique code for restless legs syndrome has been requested in subcategory 333.9, Other extrapyramidal disease and abnormal movement disorders. Meeting attendees requested that this code be effective October 2006.

Restless legs syndrome (RLS) is a sensory-motor disorder characterized by unpleasant sensations in the legs and an uncontrollable urge to move, when at rest, in an effort to relieve these feelings. RLS sensations are often described as a burning, creeping, or tugging pain associated with the desire to move the legs. The ability to sleep is affected because it occurs most often at night. No etiology has been found for restless legs syndrome, although it has been associated with a number of medical conditions including: neuropathies, radiculopathies, end-stage renal disease, Parkinson's disease,

rheumatoid arthritis, and diabetes. Treatment options range from non-pharmacological (hot baths, muscle stretching, massage, moderate exercise) to pharmacologic folate, vitamin C, and vitamin B12. Dopamine agonist therapy and Levo-dopa are used for the primary form of RLS.

Secondary Diabetes Mellitus

A new category has been proposed for diabetes due to an underlying condition. Since the same manifestations that apply to primary diabetes also apply to secondary diabetes, the codes in the new category would mirror the codes in category 250. The proposal does not include a distinction between controlled and uncontrolled secondary diabetes. The underlying condition would be sequenced first. For those patients requiring insulin, code V58.67, Long-term (current) use of insulin, should be assigned as an additional code.

In the past, secondary diabetes has been classified to code 251.8, Other specified disorders of pancreatic internal secretion. This includes steroid-induced diabetes. Attendees expressed concern that the proposed category would not clearly encompass types of secondary diabetes that are not due to an underlying condition, such as steroid-induced diabetes due an adverse effect. It was suggested that perhaps the category title should state “secondary diabetes mellitus,” with “diabetes due to an underlying condition” as an inclusion term, and the “code first” note should be modified to state “if applicable.” That way, all types of secondary diabetes could be classified to the codes in the new category.

Botulism not associated with Food Poisoning

A new code has been proposed to capture botulism not associated with food poisoning. Botulism, neuromuscular poisoning from *Clostridium botulinum* toxin, occurs in three forms: food borne, wound, and infant botulism. Wound botulism results from traumatic injury or a deep puncture wound. It is often caused by abscesses due to self injection of illegal drugs. It is manifested by neurologic symptoms, but not gastrointestinal symptoms. Symptoms typically begin with two weeks of the initial trauma or wound, but onset is much less predictable in injection drug use.

Infant botulism occurs most often in infants less than six months old. It results from the ingestion of *C. botulinum* spores that colonize in the large intestine with toxin production in vivo. Constipation is present initially in ninety percent (90%) of patients prior to the neuromuscular paralysis. Severity ranges from mild lethargy and slowed feeding to severe hypotonia and respiratory insufficiency.

Vulvar Intraepithelial Neoplasia I and II [VIN I and II]

An expansion of code 624.0, Dystrophy of vulva, has been proposed to create new codes for vulvar intraepithelial neoplasia I (VIN I) and II (VIN II). It was suggested that a default code is needed for those instances when vulvar intraepithelial neoplasia is documented without an indication of whether it is VIN I or II.

Multiple Endocrine Neoplasia [MEN I, type IIA, or type IIB]

An expansion of code 258.0, Polyglandular dysfunction and related disorders, has been proposed to create unique codes for multiple endocrine neoplasia (MEN) type I, type IIA, and type IIB. New codes have also been proposed for family history of multiple endocrine neoplasia syndrome and genetic susceptibility to malignant neoplasms of endocrine glands (with an inclusion term for genetic susceptibility to multiple endocrine neoplasia).

Multiple endocrine neoplasia (MEN) syndromes are a group of genetically distinct familial diseases involving adenomatous hyperplasia and malignant tumor formation in several endocrine glands. MEN is also referred to as multiple endocrine adenomatosis and familial endocrine adenomatosis. Three distinct syndromes, MEN I, MEN IIA, and MEN IIB have been identified, although there is some overlap between them. Because these syndromes are almost always inherited, any person with a family member who has MEN needs to be tested for both the genetic defect and any of the possible conditions associated with the syndrome.

Multiple endocrine neoplasia, type I, also referred to as Wermer's syndrome, is characterized by tumors of the parathyroid glands, pancreatic islet cells, and pituitary gland. MEN I patients also commonly have kidney stones and peptic ulcer disease. Multiple endocrine neoplasia, type IIA, also referred to as Sipple's syndrome, is characterized by medullary carcinoma of the thyroid, pheochromocytomas (which usually raises blood pressure, sometimes to severe levels), and hyperparathyroidism. Almost all patients with MEN type IIA have medullary thyroid cancer. MEN type IIB has similar features to type IIA, along with mucosal neuromas. The medullary thyroid cancers associated with type IIB tend to develop at an early age, have been found in infants as young as three months of age, and tend to grow faster and spread more rapidly than in type IIA disease. MEN type IIB has been found in patients with no known family history of MEN.

Anal Sphincter Tear

New codes have been proposed for anal sphincter tear in category 624, Noninflammatory disorders of vulva and perineum, and category 664, Trauma to perineum and vulva during delivery. Additionally, "anal sphincter tear (healed) (old) would be added as an inclusion term under subcategory 654.8, Congenital or acquired abnormality of vulva. Currently, the only code for anal sphincter tear associated with delivery is that included with a third-degree perineal laceration. However, anal sphincter tears can occur during delivery independent of third-degree lacerations, and such tears may not be identified until they complicate a subsequent delivery. Anal sphincter tears are also responsible for fecal incontinence.

It was suggested that the title of category 624 should be broadened to include noninflammatory disorders of the anus in order to create a code for anal sphincter tear in this category.

Diagnosis Addenda

Proposed diagnosis addenda changes were reviewed. The proposed revisions include (see ICD-9-CM Coordination and Maintenance Committee proposals on NCHS web site for all of the proposed diagnosis addenda changes addressed at the March meeting):

- Addition of note under code 353.1, Lumbosacral plexus lesions, indicating that the associated underlying disease, such as diabetes mellitus, should be coded first;
- Addition of inclusion term for “feeling of foreign body in throat” under code 784.99, Other symptoms involving head and neck;
- Addition of Excludes note for orthopedic aftercare (V54.01-V54.9) under code V58.78, Aftercare following surgery to specified body systems, not elsewhere classified;
- Addition of inclusion terms for “guardian refusal” and “parent refusal” under code V64.05, Vaccination not carried out because of caregiver refusal;
- Addition of Index entry for abnormal blood sugar (790.29);
- Addition of Index entry for anemia, postoperative, due to chronic blood loss (280.0) – and the corresponding addition of “acute” as a non-essential modifier for the existing Index entry for anemia, postoperative, due to blood loss;
- Revision of Index entry for congestion, chest (460);
- Revision of Index entry for congestion, lung (460);
NOTE: Objections were raised concerning the indexing of congestion of chest and lungs to code 460, Acute nasopharyngitis [common cold] – code 519.9, Unspecified disorder of respiratory system was suggested as a better alternative.
- Index entries were added for deficiency, short stature homeobox gene (SHOX) with dyschondrosteosis (756.59), with idiopathic short stature (783.43), and with Turner syndrome (758.6);
- Addition of Index entry for disease, liver, end stage, not otherwise specified (572.8);
- Addition of Index entry for disorder, bleeding (286.9);
- Addition of Index entry for disorder, involuntary emotional expression (IEED) (310.8);
- Addition of Index entry for elevation, cholesterol (272.0);
- Addition of Index entry for fracture, burst (see fracture, traumatic, by site);
- Addition of Index entry for fracture, insufficiency (see fracture, pathologic, by site);
- Addition of Index entry for gastropathy, congestive, portal (537.89);
NOTE: Attendees noted that this index entry could be confusing because portal hypertension should be sequenced first.
- Addition of Index entry for grief (309.0);
NOTE: An attendee questioned whether grief should be indexed to 309.0 or 307.9.
- Addition of Index entry for history (personal) of hysterectomy (V45.77);
- Addition of default Index entry for hyperactive, hyperactivity (314.01);
- Addition of Index entry for lymphoma, diffuse, large B cell (202.8);
- Addition of Index entry for necrosis, colon (557.0);
- Revision of Index entry for paraparesis (344.1);
- Addition of Index entry for pregnancy, complicated by post cesarean uterine artery clot (669.4);

- Addition of Index entry for regurgitation (787.03);
- Addition of Index entry for runny nose (784.99);
- Addition of Index entry for scratchy throat (784.99);
- Addition of Index entry for seizure due to stroke (438.89);
- Revision of Index entry for stress (308.9);
- Addition of default Index entry for swelling (782.3);
- Addition of Index entry for syndrome, hyperperfusion (997.01);
- Addition of Index entry for syndrome, hypothenar hammer (443.89);
- Addition of Index entry for tear, dural (998.2).

Procedures

Procedures

Automated Mechanical Anastomosis

Creation of a unique code for automated mechanical anastomosis has been proposed in subcategory 39.3, Suture of vessel. This procedure is performed in conjunction with a coronary artery bypass graft (CABG) and is intended to substantially improve patient outcomes by improving the durability and patency of the bypass graft and to facilitate minimally invasive surgical approaches. The device used to perform this procedure consists of eight stainless steel clips and a delivery system. In preparing to deploy the device, the surgeon cuts the ends of the bypass graft just as he would for a hand-sewn anastomosis and attaches the graft to four small hooks situated on the base of the cartridge. A small incision is created in the target coronary artery and the anvil is inserted. Pressing the button on the device handle, the surgeon lowers the cartridge with the graft attached onto the target coronary artery, and then deploys the staples through the graft and coronary artery against the anvil. The staples are formed on the anvil surface, joining the coronary artery and graft. A small knife located inside the anvil is released to cut the coronary artery from the inside out to create an opening in the coronary wall through which the blood can flow. Following completion of the anastomosis, the anvil is removed from the coronary artery and the small opening initially created to insert the anvil is stitched.

The presenter noted that the anastomosis can be performed more than one time during a CABG procedure, but he did not believe it would be beneficial to capture the number of anastomoses performed. Some attendees were opposed to the creation of a new code for this procedure because it violates a longstanding coding principle prohibiting the coding of services that are considered inherent to the primary surgical procedure. It would be confusing to allow separate coding of an anastomosis in coronary bypass graft but not for other types of surgical procedures. It was also noted that category 39 excludes procedures performed on coronary vessels, so a code for this procedure could not be created in this category.

Therapeutic Temperature Management

A unique code for controlled (systemic) temperature management has been proposed in subcategory 99.8, Miscellaneous physical procedures. Therapeutic temperature management is a method for induction and reversal of hypothermia and sustained patient temperature control. The purpose of this therapy is to prevent the impairment of brain function in critically ill patients who are at high risk of permanent neurological injury resulting from fever caused by cardiac arrest, stroke, or traumatic brain injury. The difference between the temperature management system described by the proposed code and other methods (such as packing the entire body in ice, infusion of iced saline, iced gastric lavage, and traditional water and air blankets) is that the direct conduction of thermal energy using hydrogel patient pads, and the feedback control of the system, results in more efficient and precise temperature management.

Attendees felt that the proposed code title wasn't sufficiently descriptive and could result in the code being used for services for which it is not intended. Also, it is not clearly distinguished from existing code 99.81, Hypothermia (central) (local). It was noted during the meeting that code 99.81 has traditionally been used to describe cooling of an arm or leg. However, the code title is not limited to that service and, in fact, "central" is a non-essential modifier.

Thermal Ablation of Liver, Lung, and Renal Lesions or Tissues

Several new codes have been proposed to describe the various types of thermal ablation performed in the liver, lung, and kidneys. These types are open, percutaneous, laparoscopic, and thoracoscopic (lung). The new codes would be created in the "local excision or destruction" subcategories for the respective anatomic sites.

The open approach to thermal ablation involves the creation of an incision to provide greater visual identification for ablation device placement. After the ablation generator is activated and has completed its cycle, the device is removed and the incision is closed via traditional methods. Laparoscopic or thoracoscopic thermal ablation involves the insertion of the ablation device into the lesion with the assistance of the laparoscope or thoracoscope, and imaging guidance, if necessary. After the ablation generator is activated and completed its cycle, the device is removed and the small incisions are closed with a few sutures. Percutaneous thermal ablation involves insertion of the ablation device through the skin and into the lesion. To achieve accurate device placement, the physician will employ ultrasound or computer tomography guidance. After the ablation generator is activated and has completed its cycle, the ablation device is removed and a bandage is placed over the insertion point.

Some attendees felt that there are other types of energy sources used in ablation procedures, such as laser, cryotherapy, and microwave therapy, and perhaps consideration should be given to creating distinct codes for these procedures as well. Other attendees felt that differentiating among the approaches has merit, but splitting out the various energy sources does not and, in fact, doing so could result in confusion because the physician may not specifically identify the energy source used.

Totally Endoscopic and Robot-Assisted Transmyocardial Revascularization

New codes have been proposed in subcategory 36.3, Other heart revascularization, to differentiate between endoscopic and percutaneous transmyocardial revascularization. According to the proposal, the description of code 36.32 would be revised to state “endoscopic transmyocardial revascularization” and new codes would be created for percutaneous transmyocardial revascularization and other transmyocardial revascularization.

The traditional approach to transmyocardial revascularization (TMR) is through an anterolateral thoracotomy. TMR is a surgical technique that uses a laser to bore holes through the myocardium of the heart in an attempt to restore perfusion to areas of the heart not being reached by diseased or clogged arteries. This technique is used as a late or last resort for relief of symptoms of severe angina in patients with ischemic heart disease not amenable to direct coronary revascularization interventions, such as angioplasty, stenting, or open coronary bypass. The totally endoscopic technique offers a minimally invasive approach and improved visualization. Four thoracoscopic ports are placed through small incisions. Visualization takes place through the endoscope using a single channel for thoracoscopic (2-D vision) and dual channel for robotic (3-D vision). The pericardium is opened and scar tissue divided to expose the surface of the heart. Then transmyocardial channels are created in the left ventricular free wall with laser energy. The endoscopic approach allows for a broader patient selection, including those who were not candidates for sternotomy or thoracotomy approaches. Percutaneous transmyocardial revascularization is performed in the catheterization laboratory and involves the insertion of a catheter up to the heart via the femoral artery. This method runs the risk of cardiac tamponade and has not demonstrated clinical efficacy. Although there is quite a bit of international interest in this method, the percutaneous approach is not commonly performed in the United States.

It was suggested that the title of code 36.32 remain unchanged and that a new code be created for endoscopic transmyocardial revascularization, in order to maintain consistency with historical data.

Endoscopic Insertion of Bronchial Valve

A new subcategory has been proposed in category 33, Other operations on lung and bronchus, to capture endoscopic insertion of devices in the bronchus, particularly bronchial valves. Several new codes for endoscopic insertion or replacement of bronchial valves have been proposed, differentiated by the number of valves.

Only a small percentage of the patient population with chronic obstructive pulmonary disease is eligible for lung transplant surgery or lung volume reduction surgery. Clinical studies are underway that focus on an endobronchial approach to emphysema treatment. This approach involves the use of a one-way endobronchial valve that blocks air from going into a diseased segment of the lung but allows air to escape. The device is either a small umbrella-shaped valve or a reinforced duckbill valve that is placed in the bronchial

tree using standard bronchoscopic techniques. Its intent is to limit the ventilation of targeted sections of the lung while still allowing trapped air and normal secretions to flow out. By limiting ventilation in part of the diseased lungs, the remaining healthier portions may function with better efficiency. Typically, multiple valves are placed during an operative episode. The number of valves depends on the extent of the disease. On average, between six and seven valves are placed during a procedure. The valves are intended to be permanent, but are designed to be removed for displacement, malfunction or other complication, if necessary. The first of these devices is expected to be approved by the U.S. Food and Drug Administration (FDA) by mid-2006 and another device is expected to be approved by 2008.

Hip Resurfacing Arthroplasty

New codes for hip resurfacing arthroplasty have been proposed in subcategory 00.8, which would be re-titled to state “other knee and hip procedures.” These codes would distinguish between a total hip resurfacing (involving the acetabulum and femoral head), a partial hip resurfacing involving the femoral head, and a partial hip resurfacing involving the acetabulum.

Hip resurfacing is intended as an alternative to a joint replacement for patients who are at risk of requiring more than one hip joint replacement over their lifetimes. Factors that increase the risk of revision surgery include younger age and/or a high activity level. Hip resurfacing is quite different from traditional hip replacement, which involves resection of the femoral head and the majority of the neck of the femur and reconstruction with a stem and replacement head. Hip resurfacing uses instruments that grind away the worn surfaces on the femoral head, retaining the femoral neck and majority of the femoral head. A cobalt chrome cap is placed over the surface of the femoral head which articulates with a metal shell press fitted into a reamed acetabulum. The indication for a total resurfacing is end-stage degenerative joint disease. The majority of patients undergoing a total hip resurfacing have osteoarthritis with about ten percent having advanced Ficat stage IV osteonecrosis. The indications for only resurfacing the femoral head are Ficat stage II or early stage IV osteonecrosis of the femoral head. Resurfacing of only the acetabulum is the least likely procedure to be performed.

Hip Replacement Bearing Surface

New codes to capture additional types of hip replacement bearing surfaces have been proposed. Two options were presented. The first option would create two new codes, one for metal-on-ceramic hip replacement bearing surface and the other for ceramic-on-polyethylene bearing surface. The second option would create only one new code for ceramic-on-polyethylene. Since the metal-on-ceramic bearing surface is several years away from FDA approval, attendees generally favored the second option.

Repair of Ventricular Septal Defect with Prosthesis, Closed Technique

The creation of a distinct code for repair of ventricular septal defect with prosthesis, closed technique, has been proposed in subcategory 35.5, Repair of atrial and ventricular

septa with prosthesis. The title of existing code 35.53 would be revised to indicate an open technique.

A ventricular septal defect is a congenital heart defect characterized by a hole in the wall, or septum, that separates the right and left ventricles. Historically, repair of this defect involved major open heart surgery in order to place a patch or graft over the defect, but a number of catheter-based interventional techniques are now available to place a variety of prostheses over the defect.

Surgical Decompression with Insertion of Interspinous Stabilization Device

Creation of a new subcategory to capture non-fusion spinal stabilization devices has been requested. Insertion of a dynamic interspinous stabilization device is performed following a surgical decompression of the spine and is intended to reduce low back pain in patients with spinal stenosis. This device preserves foraminal height, restores stability, and maintains motion at a vertebral segment.

It was recommended that no new codes for insertion of these devices be created at this time and that code 84.59, Insertion of other spinal devices, for this procedure. There are a number of non-fusion spinal stabilization devices currently under development or in clinical trials and standardized terminology is not consistently utilized to describe the technology. Also, there is debate about the use of the term “stabilization” and whether these new devices truly stabilize the spine, since evidence suggests that only fusion can stabilize the spine. It was suggested that the applicability of code 84.58, Implantation of interspinous process decompression device, to these devices be examined, since the code title sounds very similar to the description of some of these new interspinous stabilization devices.

Stereotactic Placement of Intracerebral Catheters via Burr Hole for Delivery of Therapeutic Agents

A new code has been proposed in subcategory 01.2, Craniotomy and craniectomy, to capture stereotactic placement of intracerebral catheter(s) via burr hole(s) for delivery of therapeutic agent(s). Convention enhanced delivery (CED) is a new approach for treating primary malignant brain tumors. It provides a means of administering small and large molecules to the brain. While novel, targeted antineoplastic agents have been developed for brain tumors, their administration is hampered by the blood-brain barrier which prevents the passage of large molecules. Convention enhanced delivery involves the stereotactic placement through cranial burr holes of two to four catheters into tumor cell-infiltrated brain parenchyma and the subsequent microinfusion of an antineoplastic agent. Because of the need to achieve homogenous distribution of the antineoplastic agent throughout the tumor infiltrated tissue, the catheters cannot be placed in any previous resection cavity. When the patient is stable (approximately two weeks following craniotomy with tumor resection), the antineoplastic agent is administered through the catheters by means of a microinfusion pump over 96 hours. Once the infusion is complete, the catheters are removed and the patient is discharged.

A separate hospital admission (apart from the admission for tumor resection) is expected for CED catheter placement and microinfusion of the therapeutic agent. This technique could be used with wide range of agents, not just antineoplastics. This delivery system has been used in the treatment of Alzheimer's disease and epilepsy.

An attendee suggested adding an Excludes note under code 01.26, Insertion of catheter into cranial cavity, to ensure that this code isn't inadvertently used for the procedure described by the proposed new code. It was also suggested that a "code also" note for the therapeutic agent be added under the new code.

Infusion of Cintredekin Besudotox

A new code has been requested in subcategory 00.1, Pharmaceuticals, to capture infusion of cintredekin besudotox. This agent is a novel cytotoxin-based therapy used in the treatment of recurrent glioblastoma multiforme. It is administered by the convention enhanced delivery system described in the preceding proposal.

It was suggested that infusion of cintredekin besudotox continue to be captured with code 99.28, Injection or infusion of biological response modifier (BRM) as an antineoplastic agent, since this code accurately describes administration of this drug and creation of a new code would unnecessarily reduce the dwindling supply of available procedure codes.

Implantation of Visual Prosthetic Device

A unique code for implantation of visual prosthetic device has been proposed in subcategory 13.9, Other operations on lens. FDA approval is expected soon for an implantable miniature telescope for treatment of moderate to profound visual impairment due to end-stage age-related macular degeneration. The implanted miniature telescope functions as a fixed focus telephoto quartz optical device comprising multiple wide-angle micro-optics. This device will improve visual function for individuals with age-related macular degeneration by allowing them to recognize and respond to visual images as necessary for activities of daily living. The device is implanted in one eye, providing central vision, while the non-implanted eye can continue to provide peripheral vision for orientation and mobility.

It was suggested that an Excludes note for other intraocular devices that are classified elsewhere, such as insertion of intraocular lens, be added under the proposed new code.

Procedure Addenda

Proposed procedure addenda changes were reviewed. The proposed revisions include (see ICD-9-CM Coordination and Maintenance Committee proposals on the CMS web site for all of the proposed procedure addenda changes addressed at the March meeting):

- Addition of a number of Index entries for brand names of pharmaceutical agents and devices;

NOTE: An attendee expressed concerns about indexing any brand names. However, others noted that physicians often use brand names in their documentation, so indexing these names assists coding professionals in selecting the most appropriate code. It was recommended that brand names be indexed as subterms under the main term for the procedure (such as “insertion”), since proper coding involves looking up the main term for the procedure performed, not the brand name for the device inserted or the pharmaceutical agent administered.

- Addition of Index entry for application, external fixator device (bone), computer assisted (dependent) – 84.73;
- Addition of Index entry for corpectomy, vertebral (80.99) and corpectomy, vertebral, with diskectomy (80.99);
- Addition of Index entry for embolectomy, arteriovenous shunt or cannula (39.49);
- Addition of Index entry for fistulogram, specified site NEC (88.49);
- Addition of Index entry for instillation, thoracic cavity (34.92);
- Revision of title of code 68.39 to state “other and unspecified subtotal abdominal hysterectomy;”
- Revision of title of code 68.59 to state “other and unspecified vaginal hysterectomy;”
- Addition of Excludes note for excision of intervertebral disc only (80.51) under code 80.99, Other excision of joint;
- Addition of inclusion term for water scalpel (jet) under code 86.28, Nonexcisional debridement of wound, infection, or burn;
- Addition of inclusion term for strapping (non-traction) under code 93.59, Other immobilization, pressure and attention to wound.

ICD-10-PCS Update

An update on ICD-10-PCS was provided by staff from 3M Health Information Systems. ICD-10-PCS has been streamlined in order to be consistent with inpatient facility reporting requirements, to reflect a practical level of specificity, and for ease of system implementation. This streamlining resulted in a reduction of total codes from 160,505 to 87,695. The total number of approach values was reduced from fifteen to seven. The ancillary sections were significantly streamlined by scaling down the degree of specificity. For devices and substances, specificity was added. Both a forward and backward map between ICD-10-PCS and ICD-9-CM are available on the CMS web site. The presenter noted that ICD-10-PCS and ICD-9-CM are fundamentally different. Basic maps provide equivalent code options and serve as a tool for analyzing the differences in the coding systems. Users can adapt the basic maps for their own specific purposes, such as reimbursement mapping or one-to-one “best” code mapping. Each map must have a specifically defined purpose.

For 2007, the ancillary sections will be updated to reflect new technology and substances. ICD-10-PCS will be updated as needed to reflect industry developments. Further

refinement and streamlining will occur in preparation for implementation. A draft version of DRGs using ICD-10 codes will be developed.

The most recent version of ICD-10-PCS is available on the CMS website at the following link: http://www.cms.hhs.gov/ICD9ProviderDiagnosticCodes/08_ICD10.asp.