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ICD-10 MS-DRG Update
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Agenda

• MS-DRG Basics
• The Transition of the MS-DRGs from ICD-9 to ICD-10
• Guideline changes from ICD-9 to ICD-10 that impact MS-DRG assignment
• Interesting findings early on in the assigning of MS-DRGs
The Basics

Three purposes:
• Help evaluate quality of care
• Help evaluate utilization of services
• Reimbursement
  – DRG Relative Weight x Hospital Base Rate = Hospital Payment
Relative Weight

Assigned weight that is intended to reflect the relative resource consumption associated with each MS-DRG. The higher the relative weight, the greater the payment to the hospital. The relative weights are calculated by CMS and published in the final prospective payment system rule within Table 5.
Hospital Base Rate

- The national average hospital Medicare base rate is the sum of the full update labor-related and nonlabor-related amounts published in the Federal Register, Final Rule, Table 1A. National Adjusted Operating Standardized Amounts
- Adjusted using Case Mix Index (CMI)
Case Mix Index

- Sum of all DRG relative weights for cases over a given period of time, divided by the number of Medicare cases.

- The MS-DRG system was developed to relate case mix to resource utilization.
Hospital Case Mix Index

The hospital case-mix complexity includes the following patient attributes:

• Severity of illness
• Prognosis
• Treatment difficulty
• Need for intervention
• Resource intensity

Reimbursement is adjusted to reflect the resource utilization and does not take into consideration severity of illness, prognosis, treatment difficulty, or need for intervention.
Case Mix Index

- High-volume conditions and services can be identified and monitored, and MS-DRG trend analysis can aid in forecasting future staff and facility requirements.
- Measures the cost of a hospital’s Medicare cost and utilization of services in relation to all of Medicare
  - Low indicates possible revenue loss
- Aid in forecasting staff and facility needs
MS-DRG Assignment

• One MS-DRG to an inpatient encounter
• Assigned using the following:
  – Principal and secondary diagnosis and procedure codes
  – Sex of the patient
  – Discharge status
  – Presence or absence of MCCs/CCs
  – Birth weight for neonates
• Most MS-DRGs are assigned to an MDC
  – Surgical or Medical
• Two groups of MS-DRGs that are not
  – Pre
  – All
MS-DRG Severity Levels

Most MS-DRGs are in related groups with varying severity based on secondary diagnoses or MCCs and CCs:

- Search secondary diagnoses for MCC
  - Evaluate against PDX, and exclude if related
- If No - search secondary diagnoses for CC
  - Evaluate against PDX and exclude if related
- Otherwise, assign lowest severity (without CC/MCC)
The MS-DRG Transition

Purpose and goals:

• Accept ICD-10 codes as input
• Assign DRG using ICD-10-based rules
• Maintain all existing logic
• Keep the same DRGs
• Don’t take advantage of ICD-10 specificity
• Details available on the CMS website at

Getting Started

• In 2008-2009 CMS used the ICD-9-CM based Medicare Severity DRGs (MS-DRGs), Version 26.0, and converted it to ICD-10-CM and ICD-10-PCS starting with MDC 6 the Digestive System.

• The purpose was two fold:
  – to evaluate the effectiveness of the General Equivalence Mappings (GEMs);
  and,
  – to learn how to best use the maps to convert ICD-9-CM applications to I-10.

• The conversion team worked nine months to translate the diagnosis and procedure code lists in MDC 6, and encountered three major challenges.

• Its findings suggested that more than 90 percent of ICD-10-CM codes could be converted to MS-DRGs automatically using GEMs.
  – 1% of the diagnosis codes required clinical review
  – 9% of procedure codes encountered problems that needed clinical resolution
Challenge #1

ICD-10-CM/PCS codes that translate to two or more ICD-9-CM codes that appear on more than one mutually exclusive MS-DRG list

Example:
ICD-10-CM code K22.8 (Other specified diseases of esophagus; includes hemorrhage of esophagus NOS) translates to ICD-9-CM code 530.82 (Esophageal hemorrhage) and 530.89 (Other diseases of esophagus).

Solution:
The conversion team had to decide which ICD-9-CM code best reflected the ICD-10-CM/PCS code. The team weighed reporting frequency as well as specificity in its decision and selected 530.89 as the best translation.
Challenge #2

ICD-10-PCS codes that are much more specific as to site than are ICD-9-CM codes

Example:
261 ICD-10-PCS codes translate to the general ICD-9-CM procedure code 92.27 (Implantation or insertion of radioactive elements).

Solution:
In this case the conversion team selected only 21 ICD-10-PCS codes that could appropriately be assigned to the MS-DRG Other Digestive System O.R. Procedures (356–358).
Challenge #3

Two or more ICD-10-CM codes must be used together to replicate the meaning of one ICD-9-CM code

<table>
<thead>
<tr>
<th>ICD-9-CM</th>
<th>ICD-10-PCS</th>
<th>MS-DRGs</th>
</tr>
</thead>
<tbody>
<tr>
<td>46.79</td>
<td>ODQ80ZZ</td>
<td>329-331</td>
</tr>
<tr>
<td>Other repair of intestine</td>
<td>Repair small intestine, open</td>
<td>Major small and large bowel px</td>
</tr>
<tr>
<td>46.41</td>
<td>OWQFXZ2</td>
<td>347-349</td>
</tr>
<tr>
<td>Revision of stoma small intestine</td>
<td>Repair abd wall, stoma, external</td>
<td>Anal and stomal procedures</td>
</tr>
<tr>
<td>46.51</td>
<td>ODQ80ZZ AND OWQFXZ2</td>
<td>344-346</td>
</tr>
<tr>
<td>Closure of stoma of small intestine</td>
<td>Minor small and large bowel procedures</td>
<td></td>
</tr>
</tbody>
</table>

**Solution:** The team ended up writing programs to identify cases in which “code clusters” are required to completely replicate an MS-DRG list. In the example, the assignment logic for MS-DRG 344–346 was altered so that the program looks for two ICD-10-PCS codes instead of just one ICD-9-CM code.
ICD-10-PCS Code Clusters

Below is a partial list of MS-DRGs and surgical cases that the need for ICD-10-PCS code clusters were required in order to produce the same Grouper results.

- Heart Transplantation or Implant of Heart Assist System
- Simultaneous Pancreas/Kidney Transplant
- Craniotomy with Major Device Implant
- Neurostimulators
- Cardiac Defibrillators
- Implant/replace subcutaneous cardiac device
- Lead device pairs
- Permanent Cardiac Pacemaker Implant
- Resection of abdominal aorta and other thoracic vessels with replacement
Issues that arose during Stage 2 of the conversion

• Gender specific codes

• GEM translation problems
  – Subsequent encounter for injury and poisoning
  – Obstetric codes

• MCC and CC list conversion
Conversion of the MCC/CC Lists

Two issues arose during the MCC/CC conversion:

• The first issue had to do with two mutually exclusive lists.
  – The translation program identified a list of codes and was referred to as a “list conflict.”
  – The list conflicts were reviewed by the entire conversion team, conventions established and decisions made as to whether a code would be deemed a MCC or a CC.

• The second issue had to do with certain ICD-10-CM diagnostic codes that specify both an underlying condition and an acute manifestation or complication in one code.
  – In the ICD-9-CM system you would have had two or more separate codes resulting in assignment of a principal diagnosis and a secondary diagnosis designated as a CC or MCC.
  – In this case the DRG assignment logic was modified in order to assign all ICD-10-CM codes that met this criteria to the appropriate “with MCC” or “with CC” MS-DRG by having the single code serve as principal diagnosis and as the CC or MCC as well.
## Principal Diagnosis as its own CC

In Grouper version 29 there are 244 of these types of codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>B251</td>
<td>Cytomegaloviral hepatitis</td>
</tr>
<tr>
<td>B520</td>
<td>Plasmodium malariae malaria with nephropathy</td>
</tr>
<tr>
<td>D5721</td>
<td>Sickle-cell/Hb-C disease with acute chest syndrome</td>
</tr>
<tr>
<td>D5741</td>
<td>Sickle-cell thalassemia with acute chest syndrome</td>
</tr>
<tr>
<td>E0852</td>
<td>Diabetes mellitus due to underlying condition with diabetic peripheral angiopathy with gangrene</td>
</tr>
<tr>
<td>E0952</td>
<td>Drug or chemical induced diabetes mellitus with diabetic peripheral angiopathy with gangrene</td>
</tr>
<tr>
<td>E1052</td>
<td>Type 1 diabetes mellitus with diabetic peripheral angiopathy with gangrene</td>
</tr>
<tr>
<td>E1152</td>
<td>Type 2 diabetes mellitus with diabetic peripheral angiopathy with gangrene</td>
</tr>
<tr>
<td>E1352</td>
<td>Other specified diabetes mellitus with diabetic peripheral angiopathy with gangrene</td>
</tr>
<tr>
<td>I25110</td>
<td>Atherosclerotic heart disease of native coronary artery with unstable angina pectoris</td>
</tr>
<tr>
<td>I25700</td>
<td>Atherosclerosis of coronary artery bypass graft(s), unspecified, with unstable angina pectoris</td>
</tr>
<tr>
<td>I25710</td>
<td>Atherosclerosis of autologous vein coronary artery bypass graft(s) with unstable angina pectoris</td>
</tr>
<tr>
<td>I25720</td>
<td>Atherosclerosis of autologous artery coronary artery bypass graft(s) with unstable angina pectoris</td>
</tr>
<tr>
<td>I25730</td>
<td>Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with unstable angina pectoris</td>
</tr>
<tr>
<td>I25750</td>
<td>Atherosclerosis of native coronary artery of transplanted heart with unstable angina</td>
</tr>
<tr>
<td>I25760</td>
<td>Atherosclerosis of bypass graft of coronary artery of transplanted heart with unstable angina</td>
</tr>
<tr>
<td>I25790</td>
<td>Atherosclerosis of other coronary artery bypass graft(s) with unstable angina pectoris</td>
</tr>
<tr>
<td>I70331</td>
<td>Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of thigh</td>
</tr>
<tr>
<td>I70332</td>
<td>Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of calf</td>
</tr>
<tr>
<td>I70333</td>
<td>Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of ankle</td>
</tr>
<tr>
<td>I70334</td>
<td>Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of heel and midfoot</td>
</tr>
</tbody>
</table>
## Principal Diagnosis as its own MCC

In Grouper Version 29 there are 82 of these codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A227</td>
<td>Anthrax sepsis</td>
</tr>
<tr>
<td>A267</td>
<td>Erysipelothrix sepsis</td>
</tr>
<tr>
<td>A327</td>
<td>Listerial sepsis</td>
</tr>
<tr>
<td>A3701</td>
<td>Whooping cough due to Bordetella pertussis with pneumonia</td>
</tr>
<tr>
<td>A3711</td>
<td>Whooping cough due to Bordetella parapertussis with pneumonia</td>
</tr>
<tr>
<td>A3781</td>
<td>Whooping cough due to other Bordetella species with pneumonia</td>
</tr>
<tr>
<td>A3791</td>
<td>Whooping cough, unspecified species with pneumonia</td>
</tr>
<tr>
<td>A5486</td>
<td>Gonococcal sepsis</td>
</tr>
<tr>
<td>B250</td>
<td>Cytomegaloviral pneumonitis</td>
</tr>
<tr>
<td>B252</td>
<td>Cytomegaloviral pancreatitis</td>
</tr>
<tr>
<td>B377</td>
<td>Candidal sepsis</td>
</tr>
<tr>
<td>B440</td>
<td>Invasive pulmonary aspergillosis</td>
</tr>
<tr>
<td>B451</td>
<td>Cerebral cryptococcosis</td>
</tr>
<tr>
<td>B7781</td>
<td>Ascariasis pneumonia</td>
</tr>
<tr>
<td>I2601</td>
<td>Septic pulmonary embolism with acute cor pulmonale</td>
</tr>
<tr>
<td>I2602</td>
<td>Saddle embolus of pulmonary artery with acute cor pulmonale</td>
</tr>
<tr>
<td>I2609</td>
<td>Other pulmonary embolism with acute cor pulmonale</td>
</tr>
<tr>
<td>K7041</td>
<td>Alcoholic hepatic failure with coma</td>
</tr>
<tr>
<td>K7111</td>
<td>Toxic liver disease with hepatic necrosis, with coma</td>
</tr>
<tr>
<td>K7201</td>
<td>Acute and subacute hepatic failure with coma</td>
</tr>
<tr>
<td>K7211</td>
<td>Chronic hepatic failure with coma</td>
</tr>
<tr>
<td>L89003</td>
<td>Pressure ulcer of unspecified elbow, stage 3</td>
</tr>
</tbody>
</table>
Payment Impact

- There is a “high degree of consistency between the ICD-9-CM and I-10 version of MS-DRGs,” according to a study entitled “Impact of the Transition to ICD-10 on Medicare Inpatient Hospital Payments.” The study found that overall Medicare payments would be increased only 0.05 percent under the conversion (based on 2009 data).

- The study also found that although some I-10 diagnosis and procedure codes are assigned to different MDCs than under ICD-9-CM MS-DRGs, the differences balance each other out for a net effect of close to zero.
Guideline Changes from ICD-9 to ICD-10 that Impact MS-DRG Assignment
Anemia due to malignancy

ICD-9-CM Official Coding Guideline section I.C.2.c.1. Anemia associated with malignancy:

When admission/encounter is for management of an anemia associated with the malignancy, and the treatment is only for anemia, the appropriate anemia code (such as code 285.22, Anemia in neoplastic disease) is designated as the principal diagnosis and is followed by the appropriate code(s) for the malignancy.

Code 285.22 may also be used as a secondary code if the patient suffers from anemia and is being treated for the malignancy.

If anemia in neoplastic disease and anemia due to antineoplastic chemotherapy are both documented, assign codes for both conditions.
Anemia due to Malignancy

ICD-10-CM Official Coding Guidelines section I.C.2.c.1. Anemia associated with malignancy:

When admission/encounter is for management of an anemia associated with the malignancy, and the treatment is only for anemia, the appropriate code for the malignancy is sequenced as the principal or first-listed diagnosis followed by the appropriate code for the anemia (such as code D63.0, Anemia in neoplastic disease).
## Anemia due to Malignancy

Patient presents with anemia due to stage II breast cancer

<table>
<thead>
<tr>
<th>Code</th>
<th>DRG</th>
<th>Relative Weight</th>
<th>Average Hospital Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>285.22 Anemia in neoplastic disease + 174.8 Malignant neoplasm of breast (female), unspecified site</td>
<td>812 Red Blood Cell Disorders without MCC</td>
<td>0.7872</td>
<td>$4,210.54</td>
</tr>
<tr>
<td>C50.910 Malignant neoplasm of unspecified site of unspecified female breast + D83.0 Anemia in neoplastic disease</td>
<td>599 Malignant Breast Disorders without CC/MCC</td>
<td>0.665</td>
<td>$3,556.93</td>
</tr>
</tbody>
</table>
Fracture in Patient with Osteoporosis

ICD-9-CM Coding Guidance:
AHA Coding Clinic Fourth Quarter 1993, Page 25

A pathologic fracture is defined as a break in a diseased bone due to weakening of the bone structure by pathologic processes (such as osteoporosis or bone tumors) without any identifiable trauma or following only minor trauma. Only the physician can make the determination that the fracture is out of proportion to the degree of trauma. X-ray indications of diseased bone may be used by the physician to arrive at a diagnosis of a pathologic fracture, but should not be used by coders to make this determination.
Fracture in Patient with Osteoporosis


Osteoporosis with current pathological fracture:

Category M80, Osteoporosis with current pathological fracture, is for patients who have a current pathologic fracture at the time of an encounter. The codes under M80 identify the site of the fracture. A code from category M80, not a traumatic fracture code, should be used for any patient with known osteoporosis who suffers a fracture, even if the patient had a minor fall or trauma, if that fall or trauma would not usually break a normal, healthy bone.
Fracture in Patient with Osteoporosis

Patient with known post-menopausal osteoporosis presents with a right humeral fracture

<table>
<thead>
<tr>
<th>Code</th>
<th>DRG</th>
<th>Relative Weight</th>
<th>Average Hospital Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>812.20</td>
<td>Closed fracture of unspecified part of humerus + 733.01 Senile osteoporosis</td>
<td>0.7463</td>
<td>$3,991.78</td>
</tr>
<tr>
<td>M80.021A</td>
<td>Age-related osteoporosis with current pathological fracture, right humerus, initial encounter for fracture</td>
<td>0.8012</td>
<td>$4,285.43</td>
</tr>
</tbody>
</table>

563 Fractures, Sprains, Strains and Dislocations Except Femur, Hip, Pelvis and Thigh without MCC

544 Pathological Fractures and Musculoskeletal and Connective Tissue Malignancy without CC/MCC
Subsequent Visit (Myocardial Infarction)

ICD-9-CM Definition of fifth digits for code range 410:

1 Initial episode of care

Use fifth-digit 1 to designate the first episode of care (regardless of facility site) for a newly diagnosed myocardial infarction. The fifth-digit 1 is assigned regardless of the number of times a patient may be transferred during the initial episode of care.

2 Subsequent episode of care

Use Fifth digit 2 to designate an episode of care following the initial episode when the patient is admitted for further observation, evaluation or treatment for a myocardial infarction that has received initial treatment, but is still eight weeks old.
Subsequent Visit (Myocardial Infarction)

ICD-10-CM Official Coding Guidelines Section I.C.9.e.1.:
For encounters occurring while the myocardial infarction is equal to, or less than, four weeks old, including transfers to another acute setting or a postacute setting, and the patient requires continued care for the myocardial infarction, codes from category I21 may continue to be reported. For encounters after the 4 week time frame and the patient is still receiving care related to the myocardial infarction, the appropriate aftercare code should be assigned, rather than a code from category I21. For old or healed myocardial infarctions not requiring further care, code I25.2, Old myocardial infarction, may be assigned.
Subsequent Visit (Myocardial Infarction)

Patient admitted two weeks after initial acute NSTEMI for recurrent chest pain secondary to the MI

<table>
<thead>
<tr>
<th>Code</th>
<th>DRG</th>
<th>Relative Weight</th>
<th>Average Hospital Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>410.72</td>
<td>Acute myocardial infarction, subendocardial infarction, subsequent episode of care</td>
<td>316 Other Circulatory System Diagnoses without CC/MCC</td>
<td>0.6224</td>
</tr>
<tr>
<td>I21.4</td>
<td>Non-ST elevation (NSTEMI) myocardial infarction</td>
<td>282 Acute Myocardial Infarction, Discharged Alive without CC/MCC</td>
<td>0.7736</td>
</tr>
</tbody>
</table>
Second, Subsequent AMI

ICD-9-CM Coding Guidance:
AHA Coding Clinic Number 5 1993, Page 13

Acute Inferior Myocardial Infarction with Reinfarction of Same Site

Question: A patient had an acute inferior myocardial infarction (AMI) while in the hospital. Later in the admission, the patient had another acute inferior MI (reinfarction) described as an extension of the MI. The hospital coded 410.41, Acute myocardial infarction of other inferior wall as the principal diagnosis and assigned 410.91, Acute myocardial infarction of unspecified site as a secondary diagnosis. Is it correct to use an unspecified AMI code with a specified site code?

Answer: No. The correct answer in this case would be to assign 410.41 once to describe an acute inferior myocardial infarction with reinfarction of the same site described as an extension of the MI. It is incorrect to use a nonspecified code with a specified code from the same code series.
Second, Subsequent AMI

ICD-10-CM Official Coding Guidelines section I.C.9.e.4. Subsequent acute myocardial infarction:

A code from category I22, Subsequent ST elevation (STEMI) and non ST elevation (NSTEMI) myocardial infarction, is to be used when a patient who has suffered an AMI has a new AMI within the 4 week time frame of the initial AMI. A code from category I22 must be used in conjunction with a code from category I21. The sequencing of the I22 and I21 codes depends on the circumstances of the encounter.
Second, Subsequent AMI

Patient admitted with recurrent anterolateral AMI one week after initial episode

<table>
<thead>
<tr>
<th>Code</th>
<th>DRG</th>
<th>Relative Weight</th>
<th>Average Hospital Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>410.01</td>
<td>Acute myocardial infarction of anterolateral wall, initial episode of care</td>
<td>282 Acute Myocardial Infarction, Discharged Alive without CC/MCC</td>
<td>0.7736</td>
</tr>
<tr>
<td>I22.0</td>
<td>Subsequent ST elevation (STEMI) myocardial infarction of anterior wall</td>
<td>280 Acute Myocardial Infarction, Discharged Alive with MCC</td>
<td>1.7999</td>
</tr>
</tbody>
</table>
Pressure Ulcer with Gangrene

ICD-9-CM Coding Guidance:
Volume 1:
785.4 Gangrene
   Gangrene:
       NOS
       spreading cutaneous
   Gangrenous cellulitis
   Phagedena
   Code first any associated underlying disease
Pressure Ulcer with Gangrene

ICD-10-CM Coding Guidance:
Volume 1:
L89 Pressure Ulcer
   Bed sore
   Decubitus ulcer
   Plaster ulcer
   Pressure area
   Pressure sore
   Code first any associated gangrene (I96)
### Pressure Ulcer with Gangrene

Patient admitted with gangrenous sacral pressure ulcer

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>DRG</th>
<th>Relative Weight</th>
<th>Average Hospital Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>707.03</td>
<td>Pressure ulcer, lower back</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+</td>
<td>785.4 Gangrene</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+</td>
<td>707.20 Pressure ulcer, unspecified stage</td>
<td>593 Skin Ulcers with CC</td>
<td>0.9912</td>
<td>$5,301.69</td>
</tr>
<tr>
<td>I96</td>
<td>Gangrene, not elsewhere classified</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+</td>
<td>L89.159 Pressure ulcer of sacral region, unspecified stage</td>
<td>301 Peripheral Vascular Disorders without CC/MCC</td>
<td>0.6679</td>
<td>$3,572.44</td>
</tr>
</tbody>
</table>
Interesting Findings Early On
Specificity Counts

The patient is a 68-year-old male with a long-standing history of type I diabetes mellitus. He has nonhealing ulcers of bilateral feet and has been seeing wound care for many years for debridement and whirlpool treatments. The patient failed conservation attempts and was admitted for complete amputation of the right foot for worsening diabetic foot ulcers and bone necrosis.
Specificity Counts

**Diagnosis Codes:**
E10.621 Type 1 diabetes mellitus with foot ulcer
L97.514 Non-pressure chronic ulcer of other part of right foot with necrosis of bone

**Procedure Codes:**
0Y6M0Z0 Detachment at Right Foot, Complete, Open Approach

**MS-DRG:**
618 Amputation of Lower Limb for Endocrine, Nutritional, and Metabolic Disorders without CC/MCC     RW 1.1616

If the site of the foot ulcer were documented as midfoot or heel rather than not specified, the MS-DRG would change to 617 Amputation of Lower Limb for Endocrine, Nutritional, and Metabolic Disorders with CC (RW 2.0188).

**DIFFERENCE OF $4,508.47**
Operative Approach is Important!

Patient with hydrocephalus with a suspected ventriculoperitoneal shunt malfunction presents for a shunt tap and Medtronic Strata Valve evaluation and adjustment. Satisfactory proximal outflow was noted from the shunt valve with opening pressure questionably approximately 12-15. The CSF was grossly clear in appearance. Runoff appeared satisfactory. After completion of the shunt tap, the patient’s Strata shunt valve was checked. The pressure appeared to be level 0.5. The prior operative note had reported a setting of 1.5; therefore, this was reprogrammed externally to 1.5.
Operative Approach is Important!

Diagnosis Codes:
Z45.41 Encounter for adjustment and management of cerebrospinal fluid drainage device
G91.9 Hydrocephalus, unspecified

Procedure Codes:
4A003BD Measurement of Intracranial Pressure, Percutaneous Approach
00W6X0Z Revision of Drainage Device in Cerebral Ventricle, External Approach

MS-DRG: 092 Other Disorders of Nervous System with CC RW 0.9247
If the reprogramming (revision) of the VP shunt is incorrectly reported as open, percutaneous, or percutaneous endoscopic, the encounter groups to much higher-weighted MS-DRG 032 Ventricular Shunt Procedures with CC (RW 1.9491).

AT RISK: $5,955.31
PCS 7th Character can change Everything!

Postoperative diagnosis:
Small cell carcinoma of the upper lobe of right lung

Procedure description:
Thoracoscopic segmental resection

Indications:
A 53-year-old female presents to the hospital for resection of the right upper lung secondary to multiple lung nodules identified by previous outpatient radiological examination and biopsy. The patient has smoked for 35 years and is a current two pack per day smoker. She also has a family history of lung cancer. The specimen is sent to pathology after surgery.
PCS 7th Character can change Everything!

Diagnosis Codes:
C34.11 Malignant neoplasm of upper lobe, right bronchus or lung
F17.210 Nicotine dependence, cigarettes, uncomplicated
Z80.1 Family history of malignant neoplasm of trachea, bronchus, and lung

Procedure Codes:
0BBC4ZZ Excision of Upper Lung Lobe, Percutaneous Endoscopic

MS-DRG:
165 Major Chest Procedures without CC/MCC RW 1.7854

Although the specimen is sent to pathology after the surgery, the procedure is not considered diagnostic (seventh character of X) unless it is specified as being a biopsy. If the procedure is mistakenly reported as a biopsy (0BBC4ZX Excision of Upper Lung Lobe, Percutaneous Endoscopic, Diagnostic), the MS-DRG changes to the lower-weighted 168 Other Respiratory System O.R. Procedures without CC/MCC.

DIFFERENCE OF: $2,550.83
This patient is a 57-year-old female who has rheumatoid arthritis. She now presents with an open wound of her left knee after sustaining a fall approximately seven weeks ago. After approximately one month following the injury, her wound appeared infected and was foul smelling with drainage. Debridement, meticulous dressing changes, and antibiotics have allowed this infected wound to progress to a nicely granulating wound without evidence of infection. On physical examination there is a large open wound that measures approximately 7x5 cm overlying the left knee as well as a small amount of undermining circumferentially, which has decreased considerably with wound care. She now presents for definitive wound closure with a split thickness skin graft, 7 x 5 cm, left thigh to left leg.
CM 7th Characters can have the same effect

**Diagnosis Codes:**
S81.002A Unspecified open wound, left knee, initial encounter
M06.9 Rheumatoid arthritis, unspecified

**Procedure Codes:**
0HRLX74 Replacement of Left Lower Leg Skin with Autologous Tissue Substitute, Partial Thickness, External Approach
0HBJXZZ Excision of Left Upper Leg Skin, External Approach

**MS-DRG:**
578 Skin Graft Except for Skin Ulcer or Cellulitis without CC/MCC RW 1.0684

If the seventh-character extension on the diagnosis code for the open wound of the knee is reported mistakenly as “D” Subsequent Encounter, the MS-DRG changes to 941 O.R. Procedure with Diagnoses of Other Contact with Health Services without CC/MCC (RW 1.1492).
CM 7th Characters can have the same effect

ICD-10-CM Official Guidelines for Coding and Reporting Section I.C.19.a:

7th character “A,” initial encounter is used while the patient is receiving active treatment for the condition. Examples of active treatment are: surgical treatment, emergency department encounter, and evaluation and treatment by a new physician.

7th character “D” subsequent encounter is used for encounters after the patient has received active treatment of the condition and is receiving routine care for the condition during the healing or recovery phase. Examples of subsequent care are: cast change or removal, removal of external or internal fixation device, medication adjustment, other aftercare and follow up visits following treatment of the injury or condition.

AT RISK: $248.18
Tubal Ligation…

Patient was taken to the operating room; prepped and draped in normal sterile fashion. Attention was turned to the abdomen. A 5 mm skin incision was made in the patient’s umbilicus with scalpel. Veress needle was inserted and pneumoperitoneum was achieved. A 5 mm trocar was inserted, and the scope confirmed placement in the peritoneal cavity. A separate 7-8 mm incision was made in the lower abdomen, and a 7-8 mm trocar was inserted through the incision. The Falope ring applicator was inserted into the pelvic cavity. The left fallopian tube was grasped with the applicator and the ring applied. A 3 cm knuckle of blanched white tissue was noted on the fallopian tube. The Falope ring was then used to grab the right fallopian tube and apply the ring; however, the tube appeared to tear somewhat. Therefore, this area was then cauterized to achieve full bilateral tubal ligation.
**Tubal Ligation...**

**Diagnosis Codes:**
Z30.2 Encounter for sterilization

**Procedure Codes:**
0UL54ZZ Occlusion of Right Fallopian Tube, Percutaneous Endoscopic Approach

0UL64CZ Occlusion of Left Fallopian Tube with Extraluminal Device, Percutaneous Endoscopic Approach

**MS-DRG:**
743 Uterine and Adnexa Procedures for Nonmalignancy W/O CC/MCC  RW 0.9306

Because the identical procedure was not performed bilaterally, the MS-DRG does not map to lower-weighted 745 D&C, Conization, Laparoscopy and Tubal Interruption without CC/MCC. For the procedure codes to map to the sterilization MS-DRG, the body part character value must be 7, Bilateral Fallopian Tubes.

**DIFFERENCE: $825.85**
Open Excision Groups as Debridement

Preoperative diagnosis:
Malignant melanoma of the left upper extremity

Postoperative diagnosis:
Same

Procedure description:
Wide local excision of melanoma

The patient is a 62-year-old white male who previously underwent an excisional biopsy of a malignant melanoma 1.6 cm in diameter near the posterolateral aspect of the left upper arm. A margin of 1.8 cm was outlined in a radial fashion from the periphery of the previous incision. An incision was performed with a #15 blade. The full thickness of the skin and subcutaneous tissue was excised with Bovie electrocautery. Undermining was performed with the Bovie to create flaps. The subcutaneous tissue was then closed with interrupted, inverted sutures of #2-0 Vicryl. The skin was closed with multiple vertical mattress sutures of #3-0 nylon. Excellent closure without tension was obtained.
Open Excision Groups as Debridement

Diagnosis Codes:
C43.62 Malignant melanoma of left upper limb, including shoulder

Procedure Codes:
0JBF0ZZ Excision of Left Upper Arm Subcutaneous Tissue and Fascia, Open Approach

MS-DRG:
572 Skin Debridement without CC/MCC RW 0.9872

Although technically these are not considered “debridement,” in the MS-DRG Grouper logic, a subcutaneous tissue and fascia open excision groups to the debridement MS-DRGs.
Questions?
Thank You.

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