Targeted Drug Delivery

HOSPITAL CODING AND PAYMENT GUIDE

2018

FLOWONIX

Flowonix Medical has compiled this coding information for your convenience. This information is gathered from third party sources and is subject to change without notice. This information is presented for descriptive purposes only and does not constitute reimbursement or advice. It is always the provider's responsibility to determine medical necessity and submit appropriate codes, modifiers, and charges for services rendered. Please contact your local carrier/payer for interpretation of coding, coverage and payment. Flowonix Medical does not promote the use of its products outside their FDA approved labeling.

The Customer Care Support Program is available to answer any of your coding and billing inquiries at 855-356-9666.

ICD-10-CM[1] Diagnosis Code Options

Effective October 1, 2015, ICD-10-CM codes are to be used to document the patient's condition. Just like with the ICD-9-CM diagnosis coding, it is the physician's responsibility to select and report the appropriate diagnosis codes that pertain to the patient's symptoms or conditions. Diagnosis codes are used by both physicians and facilities to document the indication for the procedure. Intrathecal drug delivery is directed at managing chronic, intractable pain. Pain can be coded and sequenced several ways depending on the documentation and the nature of the encounter. **Regardless of the place of service, ICD-10-CM diagnosis codes do not change.**

Codes from the "G89" series may be used as the principal diagnosis when the encounter is for pain control or pain management, rather than for management of the underlying conditions. Additional codes may then be assigned to give more detail about the nature and location of the pain and the underlying cause. It is the physician's responsibility to code the appropriate diagnosis code(s) based on the patient's condition and presenting symptoms.

When a specific pain disorder is not documented or the encounter is to manage the cause of the pain, the underlying condition is coded and sequenced as the principal diagnosis.

The following table gives a breakdown of commonly billed ICD-10-CM[1] diagnosis codes used in all places of service.

PL-19535-07
Approval Date: March 2018

ICD-10-CM[1] Diagnosis Codes

Category	Code	Code Description
Chronic Pain Disorders	G89.0	Central Pain Syndrome
	G89.29[2]	Other Chronic Pain
	G89.3	Neoplasm-related pain
	G89.4	Chronic Pain Syndrome
Reflex Sympathetic Dystrophy and Causalgia[3]	G90.521	Complex regional pain syndrome I of right lower limb
	G90.522	Complex regional pain syndrome I of left lower limb
	G90.523	Complex regional pain syndrome I of lower limb, bilateral
	G90.529	Complex regional pain syndrome I of unspecified lower limb
	G57.70	Causalgia of unspecified lower limb
	G57.71	Causalgia of right lower limb
	G57.72	Causalgia of left lower limb
Underlying Causes of Chronic Non-Cancer Pain	B02.22	Postherpetic trigeminal neuralgia
	B02.23	Postherpetic polyneuropathy
	G03.1	Chronic meningitis
	G03.9	Meningitis, unspecified
	G54.6	Phantom limb syndrome with pain current traumatic nerve root and
	G54.7	Phantom limb syndrome without pain
	G57.90	Unspecified mononeuropathy of unspecified lower limb
	G57.91	Unspecified mononeuropathy of right lower limb
	G57.92	Unspecified mononeuropathy of left lower limb
	M96.1	Postlaminectomy syndrome, not elsewhere classified
	M54.14	Radiculopathy, thoracic region
	M54.15	Radiculopathy, thoracolumbar region
	M54.16	Radiculopathy, lumbar region
	M54.17	Radiculopathy, lumbosacral region
	M80.08XA	Age-related osteoporosis with current pathological fracture, vertebra(e), initial encounter for fracture
	M80.88XA	Other osteoporosis with current pathological fracture, vertebra(e), initial encounter for fracture

ICD-10-CM[1] Diagnosis Codes (continued)

Category	Code	Code Description
Underlying Causes of Cancer Pain	C15.3	Malignant neoplasm of upper third of esophagus
	C15.4	Malignant neoplasm of middle third of esophagus
	C15.5	Malignant neoplasm of lower third of esophagus
	C15.3	Malignant neoplasm of upper third of esophagus
	C15.4	Malignant neoplasm of middle third of esophagus
	C15.5	Malignant neoplasm of lower third of esophagus
	C15.8	Malignant neoplasm of overlapping sites of esophagus
	C15.9	Malignant neoplasm of esophagus, unspecified
	C16.0	Malignant neoplasm of cardia
	C16.4	Malignant neoplasm of pylorus
	C16.3	Malignant neoplasm of pyloric antrum
	C16.1	Malignant neoplasm of fundus of stomach
	C16.2	Malignant neoplasm of body of stomach
	C16.5	Malignant neoplasm of lesser curvature of stomach, unspecified
	C16.6	Malignant neoplasm of greater curvature of stomach, unspecified
	C16.8	Malignant neoplasm of overlapping sites of stomach
	C16.9	Malignant neoplasm of stomach, unspecified
	C18.3	Malignant neoplasm of hepatic flexure
	C18.4	Malignant neoplasm of transverse colon
	C18.6	Malignant neoplasm of descending colon
	C18.7	Malignant neoplasm of sigmoid colon
	C18.0	Malignant neoplasm of cecum
	C18.1	Malignant neoplasm of appendix
	C18.2	Malignant neoplasm of ascending colon
	C18.5	Malignant neoplasm of splenic flexure
	C18.8	Malignant neoplasm of overlapping sites of colon
	C18.9	Malignant neoplasm of colon, unspecified
	C19	Malignant neoplasm of rectosigmoid junction
	C20	Malignant neoplasm of rectum
	C21.1	Malignant neoplasm of anal canal
	C21.0	Malignant neoplasm of anus, unspecified
	C21.2	Malignant neoplasm of cloacogenic zone
	C21.8	Malignant neoplasm of overlapping sites of rectum, anus and anal canal
	C78.5	Secondary malignant neoplasm of large intestine and rectum

ICD-10-CM[1] Diagnosis Codes (continued)

Category	Code	Code Description
Underlying Causes of Cancer Pain	C22.0	Liver cell carcinoma
	C22.2	Hepatoblastoma
	C22.3	Angiosarcoma of liver
	C22.4	Other sarcomas of liver
	C22.7	Other specified carcinomas of liver
	C22.8	Malignant neoplasm of liver, primary, unspecified as to type
	C22.9	Malignant neoplasm of liver, not specified as primary or secondary
	C78.5	Secondary malignant neoplasm of large intestine and rectum
	C78.7	Secondary malignant neoplasm of liver and intrahepatic bile duct
	C25.0	Malignant neoplasm of head of pancreas
	C25.1	Malignant neoplasm of body of pancreas
	C25.2	Malignant neoplasm of tail of pancreas
	C25.3	Malignant neoplasm of pancreatic duct
	C25.4	Malignant neoplasm of endocrine pancreas
	C25.7	Malignant neoplasm of other parts of pancreas
	C25.8	Malignant neoplasm of overlapping sites of pancreas
	C25.9	Malignant neoplasm of pancreas, unspecified
	C33	Malignant neoplasm of trachea
	C34.00	Malignant neoplasm of unspecified main bronchus
	C34.01	Malignant neoplasm of right main bronchus
	C34.02	Malignant neoplasm of left main bronchus
	C34.10	Malignant neoplasm of upper lobe, unspecified bronchus or lung
	C34.11	Malignant neoplasm of upper lobe, right bronchus or lung
	C34.12	Malignant neoplasm of upper lobe, left bronchus or lung
	C34.2	Malignant neoplasm of middle lobe, bronchus or lung
	C34.30	Malignant neoplasm of lower lobe, unspecified bronchus or lung
	C34.31	Malignant neoplasm of lower lobe, right bronchus or lung
	C34.32	Malignant neoplasm of lower lobe, left bronchus or lung
	C34.80	Malignant neoplasm of overlapping sites of unspecified bronchus and lung
	C34.81	Malignant neoplasm of overlapping sites of right bronchus and lung
	C34.82	Malignant neoplasm of overlapping sites of left bronchus and lung
	C34.90	Malignant neoplasm of unspecified part of unspecified bronchus or lung

ICD-10-CM[1] Diagnosis Codes (continued)

Category	Code	Code Description
Underlying Causes of Cancer Pain	C34.91	Malignant neoplasm of unspecified part of right bronchus or lung
	C34.92	Malignant neoplasm of unspecified part of left bronchus or lung
	C78.00	Secondary malignant neoplasm of unspecified lung
	C78.01	Secondary malignant neoplasm of right lung
	C78.02	Secondary malignant neoplasm of left lung
	C41.0	Malignant neoplasm of bones of skull and face
	C41.1	Malignant neoplasm of mandible
	C41.2	Malignant neoplasm of vertebral column
	C41.3	Malignant neoplasm of ribs, sternum and clavicle
	C40.00	Malignant neoplasm of scapula and long bones of unspecified upper limb
	C40.01	Malignant neoplasm of scapula and long bones of right upper limb
	C40.02	Malignant neoplasm of scapula and long bones of left upper limb
	C40.11	Malignant neoplasm of short bones of right upper limb
	C40.12	Malignant neoplasm of short bones of left upper limb
	C41.4	Malignant neoplasm of pelvic bones, sacrum and coccyx
	C40.20	Malignant neoplasm of long bones of unspecified lower limb
	C40.21	Malignant neoplasm of long bones of right lower limb
	C40.22	Malignant neoplasm of long bones of left lower limb
	C40.30	Malignant neoplasm of short bones of unspecified lower limb
	C40.31	Malignant neoplasm of short bones of right lower limb
	C40.32	Malignant neoplasm of short bones of left lower limb
	C40.80	Malignant neoplasm of overlapping sites of bone and articular cartilage of unspecified limb
	C40.81	Malignant neoplasm of overlapping sites of bone and articular cartilage of right limb
	C40.82	Malignant neoplasm of overlapping sites of bone and articular cartilage of left limb

ICD-10-CM[1] Diagnosis Codes (continued)

Category	Code	Code Description
Underlying Causes of Cancer Pain	C40.90	Malignant neoplasm of unspecified bones and articular cartilage of unspecified limb
	C40.91	Malignant neoplasm of unspecified bones and articular cartilage of right limb
	C40.92	Malignant neoplasm of unspecified bones and articular cartilage of left limb
	C41.9	Malignant neoplasm of bone and articular cartilage, unspecified
	C79.51	Secondary malignant neoplasm of bone
	C50.011	Malignant neoplasm of nipple and areola, right female breast
	C50.012	Malignant neoplasm of nipple and areola, left female
	C50.019	Malignant neoplasm of nipple and areola, unspecified female breast
	C50.111	Malignant neoplasm of central portion of right female breast
	C50.112	Malignant neoplasm of central portion of left female breast
	C50.119	Malignant neoplasm of central portion of unspecified female breast
	C50.211	Malignant neoplasm of upper-inner quadrant of right female breast
	C50.212	Malignant neoplasm of upper-inner quadrant of left female breast
	C50.219	Malignant neoplasm of upper-inner quadrant of unspecified female breast
	C50.311	Malignant neoplasm of lower-inner quadrant of right female breast
	C50.312	Malignant neoplasm of lower-inner quadrant of left female breast
	C50.319	Malignant neoplasm of lower-inner quadrant of unspecified female breast
	C50.411	Malignant neoplasm of upper-outer quadrant of right female breast
	C50.412	Malignant neoplasm of upper-outer quadrant of left female
	C50.419	Malignant neoplasm of upper-outer quadrant of unspecified female breast

ICD-10-CM[1] Diagnosis Codes (continued)

Category	Code	Code Description
Underlying Causes of Cancer Pain	C50.511	Malignant neoplasm of lower-outer quadrant of right female breast
	C50.512	Malignant neoplasm of lower-outer quadrant of left female breast
	C50.519	Malignant neoplasm of lower-outer quadrant of unspecified female breast
	C50.611	Malignant neoplasm of axillary tail of right female breast
	C50.612	Malignant neoplasm of axillary tail of left female
	C50.619	Malignant neoplasm of axillary tail of unspecified female breast
	C50.811	Malignant neoplasm of overlapping sites of right female breast
	C50.812	Malignant neoplasm of overlapping sites of left female breast
	C50.819	Malignant neoplasm of overlapping sites of unspecified female breast
	C50.911	Malignant neoplasm of unspecified site of right female breast
	C50.912	Malignant neoplasm of unspecified site of left female breast
	C50.919	Malignant neoplasm of unspecified site of unspecified female breast
	C53.0	Malignant neoplasm of endocervix
	C53.1	Malignant neoplasm of exocervix
	C53.8	Malignant neoplasm of overlapping sites of cervix uteri
	C53.9	Malignant neoplasm of cervix uteri, unspecified
	C54.1	Malignant neoplasm of endometrium
	C54.2	Malignant neoplasm of myometrium
	C54.3	Malignant neoplasm of fundus uteri
	C54.9	Malignant neoplasm of corpus uteri, unspecified
	C54.0	Malignant neoplasm of isthmus uteri
	C54.8	Malignant neoplasm of overlapping sites of corpus uteri
	C56.1	Malignant neoplasm of right ovary
	C56.2	Malignant neoplasm of left ovary
	C56.9	Malignant neoplasm of unspecified ovary

ICD-10-CM[1] Diagnosis Codes (continued)

Category	Code	Code Description
Underlying Causes of Cancer Pain	C79.60	Secondary malignant neoplasm of unspecified ovary
	C79.61	Secondary malignant neoplasm of right ovary
	C79.62	Secondary malignant neoplasm of left ovary
	C61	Malignant neoplasm of prostate
	C62.00	Malignant neoplasm of unspecified undescended testis
	C62.01	Malignant neoplasm of undescended right testis
	C62.02	Malignant neoplasm of undescended left testis
	C62.10	Malignant neoplasm of unspecified descended testis
	C62.12	Malignant neoplasm of descended left testis
	C62.90	Malignant neoplasm of unspecified testis, unspecified whether descended or undescended
	C62.91	Malignant neoplasm of right testis, unspecified whether descended or undescended
	C62.92	Malignant neoplasm of left testis, unspecified whether descended or undescended
	C67.0	Malignant neoplasm of trigone of bladder
	C67.1	Malignant neoplasm of dome of bladder
	C67.2	Malignant neoplasm of lateral wall of bladder
	C67.3	Malignant neoplasm of anterior wall of bladder
	C67.4	Malignant neoplasm of posterior wall of bladder
	C67.5	Malignant neoplasm of bladder neck
	C67.6	Malignant neoplasm of ureteric orifice
	C67.7	Malignant neoplasm of urachus
	C67.8	Malignant neoplasm of overlapping sites of bladder
	C67.9	Malignant neoplasm of bladder, unspecified
	C64.1	Malignant neoplasm of right kidney, except renal pelvis
	C64.2	Malignant neoplasm of left kidney, except renal pelvis
	C64.9	Malignant neoplasm of unspecified kidney, except renal pelvis
	C65.1	Malignant neoplasm of right renal pelvis
	C65.2	Malignant neoplasm of left renal pelvis
	C65.9	Malignant neoplasm of unspecified renal pelvis
	C79.00	Secondary malignant neoplasm of unspecified kidney and renal pelvis
	C79.01	Secondary malignant neoplasm of right kidney and renal pelvis
	C79.02	Secondary malignant neoplasm of left kidney and renal pelvis

ICD-10-CM[1] Diagnosis Codes (continued)

Category	Code	Code Description
Underlying Causes of Cancer Pain	C71.0	Malignant neoplasm of cerebrum, except lobes and ventricles
	C71.1	Malignant neoplasm of frontal lobe
	C71.2	Malignant neoplasm of temporal lobe
	C71.3	Malignant neoplasm of parietal lobe
	C71.4	Malignant neoplasm of occipital lobe
	C71.5	Malignant neoplasm of cerebral ventricle
	C71.6	Malignant neoplasm of cerebellum
	C71.7	Malignant neoplasm of brain stem
	C71.8	Malignant neoplasm of overlapping sites of brain
	C71.9	Malignant neoplasm of brain, unspecified
	C72.20	Malignant neoplasm of unspecified olfactory nerve
	C72.21	Malignant neoplasm of right olfactory nerve
	C72.22	Malignant neoplasm of left olfactory nerve
	C72.30	Malignant neoplasm of unspecified optic nerve
	C72.31	Malignant neoplasm of right optic nerve
	C72.32	Malignant neoplasm of left optic nerve
	C72.40	Malignant neoplasm of unspecified acoustic nerve
	C72.41	Malignant neoplasm of right acoustic nerve
	C72.42	Malignant neoplasm of left acoustic nerve
	C72.50	Malignant neoplasm of unspecified cranial nerve
	C72.59	Malignant neoplasm of other cranial nerves
	C70.0	Malignant neoplasm of cerebral meninges
	C70.9	Malignant neoplasm of meninges, unspecified
	C70.1	Malignant neoplasm of spinal meninges
	C72.9	Malignant neoplasm of central nervous system, unspecified
	C72.9	Malignant neoplasm of central nervous system, unspecified
	C70.1	Malignant neoplasm of spinal meninges
	M84.58XA	Pathological fracture in neoplastic disease, other specified site, initial encounter for fracture

ICD-10-CM[1] Diagnosis Codes (continued)

Category	Code	Code Description
Attention to Device[4]	Z45.49	Encounter for adjustment and management of other implanted nervous system device

[1]The International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) is maintained by the National Center for Health Statistics and the Center for Medicare and Medicaid Services

[2]Pain must be specifically documented as “chronic” to use code G89.29. Similarly the diagnostic term “chronic pain syndrome” must be specifically documented to use code G89.4. If these terms are not documented, then other symptom codes for pain may be assigned instead. However, they cannot be sequenced as a principal diagnosis. Rather, the underlying condition would ordinarily be used as the principal diagnosis in this circumstance.

[3]Complex Regional Pain Syndrome (CRPS) not specified by type defaults to type 1. Codes from the G89 series should not be assigned with CRPS as pain is a known component of these disorders.

[4]ICD-10-CM Code Z245.49 is used as the principal diagnosis when patients are seen for rountine device maintenance, such as periodic device-checks and programming as well as routine device replacement. A secondary diagnosis code is then used for the underlying condition.

ICD-10-PCS[1] Procedure Codes

Hospitals use ICD-10-PCS procedure codes for inpatient services.

Trial Procedure	Code	Code Description
Catheter Implantation[2]	00HU33Z	Insertion of infusion device into spinal canal, percutaneous approach
Intrathecal Injection	3E0R3NZ	Introduction of analgesics, hypnotics, sedatives into spinal canal, percutaneous approach

Catheter Procedures	Code	Code Description
Catheter Implantation[2]	00HU33Z	Insertion of infusion device into spinal canal, percutaneous approach
Catheter Removal	00PU03Z	Removal of infusion device from spinal canal, open approach
	00PU33Z	Removal of infusion device from spinal canal, percutaneous approach
Catheter Replacement	Two codes are required to identify a device replacement; one code for implantation of the new	
Catheter Revision[3]	00WU03Z	Revision of infusion device in spinal canal, open approach
	00WU33Z	Revision of infusion device in spinal canal, percutaneous approach
	0JWT03Z	Revision of infusion device in trunk subcutaneous tissue and fascia, open approach
	0JWT33Z	Revision of infusion device in trunk subcutaneous tissue and fascia, percutaneous approach

Pump Procedures	Code	Code Description
Pump Implantation[4]	0JH80VZ	Insertion of infusion pump into abdomen subcutaneous tissue and fascia, open approach
Pump Removal[4]	0JPT0VZ	Removal of infusion pump from trunk subcutaneous tissue and fascia, open approach
	0JPT3VZ	Removal of infusion pump from trunk subcutaneous tissue and fascia, percutaneous approach
Pump Replacement	Two codes are required to identify a device replacement; one code for implantation of the new	
Pump Revision[5]	0JWT0VZ	Revision of infusion pump in trunk subcutaneous tissue and fascia, open approach
	0JWT3VZ	Revision of infusion pump in trunk subcutaneous tissue and fascia, percutaneous approach

[1]U.S. Department of Health and Human Services, Centers for Medicare & Medicaid Services. International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS). http://www.cms.gov/Medicare/Coding/ICD10/2017-ICD-10-PCS-and-GEMs.html.

[2]Approach value 3-Percutaneous is used when the catheter is placed by spinal needle via puncture or minor incision.

[3]For catheter revision, the ICD-10-PCS Codes using body part value T- Subcutaneous Tissue and Fascia refer to rension of the subcutaneous portion of the catheter.

[4]Placement of the pump is shown with approach value 0-open because creating the pocket requires surgical dissection and exposure. Removal also usually requires surgical dissection to free the device.

[5]For pump revision, the ICD-10-PCS Codes shown can be assigned for opening the pocket for generator revision, as well as reshaping or relocationg the pocket while reinserting the same generator.

HCPCS II Device and Drug Codes[1]

Commonly billed HCPCS II Device and Drug Codes used in all places of service. However, in the outpatient hospital setting these codes are used in conjunction with Device C codes when billing Medicare.

Device/Drug	Code	Code Description
Programmable Pump and Catheter	E0783	Infusion pump system, implantable, programmable (includes all components, e.g., pump, catheter, connectors, etc.)
Programmable Pump Only (Replacement)	E0786	Implantable programmable infusion pump, replacement (excludes implantable intraspinal catheter)
Intraspinal Implantable Catheter Only	E0785	Implantable intraspinal (epidural/intrathecal) catheter used with implantable infusion pump, replacement
Personal Therapy Controller[2]	A9900	Misc. DME supply, accessory, and/or service component of another HCPCS Code (used for replacement only)
Refill Kit	A4220	Refill Kit for implantable infusion pump
Infumorph™ (preservative-free morphine sulfate sterile solution)	J2274	Injection, morphine sulfate, preservative-free for epidural or intrathecal use, 10 mg

[1]Healthcare Common Procedure Coding System (HCPCS) Level II codes are maintained by the Center for Medicare and Medicaid Services. More information can be found at: http://www.cms.gov/Medicare/Coding/MedHCPCSGenInfo/index.html.

[2]The CMS HCPCS Workgroup maintains that PTC is included as a component of E0783 when the system is initially implanted. See also Medicare Pricing Data Analysis and Coding (PDAC) database at http://www.dmepdac.com/. If the PTC must be later replaced, Code A9900 is assigned.

Device C-Codes[1] (Medicare)

Hospitals assign C-codes in the outpatient hospital setting only when billing Medicare. Although other payers may also accept C-codes, regular HCPCS-II device codes are generally used for billing non-Medicare carriers.

Device/Drug	Code	Code Description
Infusion Pump	C1772	Infusion pump, programmable, implantable
Intrathecal Catheter	C1755	Catheter, Intraspinal

[1]Device C-codes are HCPCS Level II codes and also maintained by the Center for Medicare and Medicaid Services. A list of C-codes is available at: https://www.cms.gov/Medicare/Coding/HCPCSReleaseCodeSets/Alpha-Numeric-HCPCS-Items/2016-Alpha-Numeric-HCPCS-File.html

Device Edits (Medicare)[1]

Medicare's Consolidated Device Edits require that when specific CPT procedure codes for device implantation are billed, associated C-codes for the devices must also be billed. Because Device Edits go with C-codes, these are only used in the outpatient hospital setting.

CPT Procedure Code[2]	CPT Code Description	Associated C-Codes	C-Code Description
62362	Implantation or replacement of device for intrathecal or epidural drug infusion; programmable pump, including preparation of pump, with or without programming	C1772	Infusion pump, programmable, implantable

[1]Centers for Medicare & Medicaid Services. Medicare Program: Hospital Outpatient Prospective Payment System and Ambulatory Surgical Center Payment Systems…Federal Register / Vol. 82, No. 219 / Wednesday, November 15, 2017, https://www.federalregister.gov/documents/2017/11/15/2017-23953/medicare-program-revisions-to-payment-policies-under-the-physician-fee-schedule-and-other-revisions

[2]CPT Copyright 2018 American Medical Association. All rights reserved. CPT is a registered trademark of the American Medical Association. No fee schedules, basic units, relative values, or related listings are included in CPT. The AMA assumes no liability for the data contained herein. Applicable FARS/DFARS restrictions apply to government use.

Hospital Outpatient Coding and Payment
CPT® Procedure Codes[1] and APC Codes[2]

Hospitals use CPT codes for outpatient services. Under Medicare's APC methodology for hospital outpatient payment, each CPT code is assigned to one of about 700 ambulatory payment classes. Each APC has a relative weight that is then converted into a flat payment amount. Multiple APCs can be assigned for each claim depending on the number of procedures coded.

For 2016, CMS designated 35 APCs as Comprehensive APCs (C-APCs). Each CPT procedure code assigned to one of these C-APCs is considered a primary service. All other procedures and services coded on the bill are considered adjunctive to delivery of the primary service. This results in a single APC payment and a single beneficiary copayment for the entire outpatient encounter, based solely on the primary service. Separate payment is not made for the other adjunctive services. Instead, the payment level for the C-APC is calculated to include the costs of the other adjunctive services, which are packaged into the payment for the primary service.

When more than one primary service is coded for the same outpatient encounter, the codes are ranked according to a fixed hierarchy. The C-APC is then assigned according to the highest ranked code. In some special circumstances, the combination of two primary services leads to a "complexity adjustment" in which the entire encounter is re-mapped to another higher-level APC. However, there are no complexity adjustments for Targeted Drug Delivery (TDD) therapy.

As shown on the following tables, TDD therapy is subject to C-APCs specifically for implantation/replacement of the pump. C-APCs are identified by status indicator J1.

The following table gives information on procedures, codes, APC, status indicator and payment based on the Medicare national average.

Hospital Outpatient Coding and Payment
CPT® Procedure Codes and APC Codes (continued)

Procedure	Code[1]	Code Description[1]	APC[2]	APC Descriptor[2]	Status Indicator[2,3]	Relative Weight[2]	2018 Medicare National Average[2,4]
Trial[5,6]	62322	Injection(s), of diagnostic or therapeutic substance(s) (eg, anesthetic, antispasmodic, opioid, steroid, other solution), not including neurolytic substances, including needle or catheter placement, interlaminar epidural or subarachnoid, lumbar or sacral (caudal); without imaging guidance	5442	Level II Nerve Injections	T	6.9096	$543
	or 62323	With imaging guidance (ie, fluoroscopy or CT)	5442	Level II Nerve Injections	T	6.9096	$543
	62326	Injection(s), including indwelling catheter placement, continuous infusion or intermittent bolus, of diagnostic or therapeutic substance(s) (eg, anesthetic, antispasmodic, opioid, steroid, other solution), not including neurolytic substances, interlaminar epidural or subarachnoid, lumbar or sacral (caudal); without imaging guidance	5443	Level III Nerve Injections	T	8.5474	$672
	or 62327	With imaging guidance (ie, fluoroscopy or CT)	5443	Level III Nerve Injections	T	8.5474	$672
Implantation or Revision of Catheter[7]	62350	Implantation, revision, or repositioning of tunneled intrathecal or epidural catheter, for long-term medication administration via an external pump or implantable reservoir/ infusion/pump; without laminectomy	5432	Level III Nerve Procedure	T	58.8442	$4,627

Hospital Outpatient Coding and Payment
CPT® Procedure Codes and APC Codes (continued)

Procedure	Code[1]	Code Description[1]	APC[2]	APC Descriptor[2]	Status Indicator[2,3]	Relative Weight[2]	2018 Medicare National Average[2,4]
Implantation or Replacement of Pump[7,8]	62362	Implantation or replacement of device for intrathecal or epidural drug infusion; programmable pump, including preparation of pump, with or without programming	5471	Implantation of drug infusion device	J1	209.0602	$16,440
Removal of Catheter or Pump[7,9]	62355	Removal of previously implanted intrathecal or epidural catheter	5431	Level I Nerve Procedure	Q2	20.4791	$1,610
	62365	Removal of subcutaneous reservoir or pump previously implanted for intrathecal or epidural infusion	5432	Level II nerve procedures	Q2	58.8442	$4,627
Drug[10]	J2274	Preservative-free for epidural or intrathecal use, 10 mg	N/A	N/A	N	N/A	N/A
Refill/Analysis/ Repro-gramming[11,12,13]	62367	Electronic analysis of programmable, implanted pump for intrathecal or epidural drug infusion (includes evaluation of reservoir status, alarm status, drug prescription status); without reprogramming or refill	5743	Level III Electronic Analysis of Devices	S	3.3302	$262
	62368	Electronic analysis of programmable, implanted pump for intrathecal or epidural drug infusion (includes evaluation of reservoir status, alarm status, drug prescription status); with reprogramming	5743	Level III Electronic Analysis of Devices	S	3.3302	$262

Hospital Outpatient Coding and Payment
CPT® Procedure Codes and APC Codes (continued)

Procedure	Code[1]	Code Description[1]	APC[2]	APC Descriptor[2]	Status Indicator[2,3]	Relative Weight[2]	2018 Medicare National Average[2,4]
Refill/Analysis/ Repro-gramming[11, 12, 13]	62369	Electronic analysis of programmable, implanted pump for intrathecal or epidural drug infusion (includes evaluation of reservoir status, alarm status, drug prescription status); with reprogramming and refill	5743	Level III Electronic Analysis of Devices	S	3.3302	$262
	62370	Electronic analysis of programmable, implanted pump for intrathecal or epidural drug infusion (includes evaluation of reservoir status, alarm status, drug prescription status); with reprogramming and refill (requiring skill of a physician or other qualified health care professional)	5743	Level III Electronic Analysis of Devices	S	3.3302	$262
Catheter Dye Study[14]	61070	Puncture of shunt tubing or reservoir for aspiration or injection procedure	5442	Level II Nerve Injections	T	6.9096	$543
	75809	Shuntogram for investigation of previously placed indwelling non vascular shunt (eg, indwelling infusion pump)[16]	5522	Level II Imaging Without Contrast	Q2	151.00	$119
Pump Rotor Study	62368	Electronic analysis of programmable, implanted pump for intrathecal or epidural drug infusion (includes evaluation of reservoir status, alarm status, drug prescription status); with reprogramming	5743	Level 3 Electronic Analysis of Devices	S	3.3302	$262
	76000	Fluoroscopy (separate procedure), up to 1 hour physician or other qualified health care professional time	5522	Level II Imaging Without Contrast	S	151.00	$119

Hospital Outpatient Coding and Payment
CPT® Procedure Codes and APC Codes (continued)

[1]CPT® Copyright 2017 American Medical Association. All rights reserved. CPT® is a registered trademark of the American Medical Association. No fee schedules, basic units, relative values, or related listings are included in CPT®. The AMA assumes no liability for the data contained herein. Applicable FARS/DFARS restrictions apply to government use.

[2]Centers for Medicare & Medicaid Services. Medicare Program: Hospital Outpatient Prospective Payment System and Ambulatory Surgical Center Payment Systems...Federal Register / Vol. 82, No. 219 / Wednesday, November 15, 2017, https://www.federalregister.gov/documents/2017/11/15/2017-23953/medicare-program-revisions-to-payment-policies-under-the-physician-fee-schedule-and-other-revisions

[3]Status Indicator (SI) shows how a code is handled for payment purposes. S = always paid at 100% of rate; T = paid at 50% of rate when billed with another higher-weighted T procedure; N = packaged service, no separate payment; J1 = paid under comprehensive APC, single payment based on primary service without separate payment for other adjunctive services; K = non-pass-through drugs, paid under separate APC unless submitted with J1. See notes 10 and 17 for status indicator Q2.

[4]Medicare national average payment is determined by multiplying the APC weight by the conversion factor. The conversion factor for 2018 is $78.636. The conversion factor of $78.636 assumes that hospitals meet reporting requirements of the Hospital Outpatient Quality Reporting Program. Centers for Medicare & Medicaid Services. Medicare Program: Hospital Outpatient Prospective Payment System and Ambulatory Surgical Center Payment Systems. Federal Register / Vol. 82, No. 219 / Wednesday, November 15, 2017, https://www.federalregister.gov/documents/2017/11/15/2017-23953/medicare-program-revisions-to-payment-policies-under-the-physician-fee-schedule-and-other-revisions. Payment is adjusted by the wage index for each hospital's specific geographic locality, so payment will vary from the national average Medicare payment levels displayed. Also note that any applicable coinsurance, deductible, and other amounts that are patient obligations are included in the national average payment amount shown.

[5]According to CPT® manual instructions, injection codes 62322 and 62326 both include temporary catheter placement. Code 62322 is used for needle injection or when a catheter is placed to administer one or more injections on a single calendar day. Code 62326 is used when the catheter is left in place to deliver the agent continuously or intermittently for more than a single calendar day.

[6]Check with the payer for specific guidelines on coding a tunneled trial catheter. Options may include 62326 to reflect the temporary nature of the trial or 62350 to reflect the tunneling even though the code definition specifies "long-term."

[7]For pump and catheter replacement, NCCI edits do not allow removal of the existing device to be coded separately with implantation of the new device.

[8]When pump implantation is coded and billed together with catheter implantation, ie, 62362 plus 62350, the entire encounter continues to map to the APC for pump implantation. Because this is a C-APC and no complexity adjustment applies, there is no additional payment for the catheter.

[9]Status Q2 indicates that device removal codes 62355 and 62365 are conditionally packaged. When submitted with another code with status "T", such as the catheter implantation code 62350 or catheter dye study code 61070, the device removal codes are packaged into the primary service and are not separately payable. However, a device removal code is separately payable when it is the only procedure performed. When both device removal codes 62355 and 62365 are performed together, with no other procedures, then higher-weighted code 62365 is paid and lower-weighted code 62355 is packaged and not separately payable.

[10]Code J2274 is packaged and not separately payable. However, except in one specific scenario (see note 12), code J2278 is designated as a "specified covered outpatient drug." It is assigned to an APC and generates separate payment. ASP values are publicly available at: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Part-B-Drugs/McrPartBDrugAvgSalesPrice/2018ASPFiles.html. CMS updates Average Sales Price (ASP) drug pricing on a quarterly basis. For 2016, the payment amount is based on ASP plus 6%. Centers for Medicare & Medicaid Services. Medicare Program: Hospital Outpatient Prospective Payment System and Ambulatory Surgical Center Payment Systems. Federal Register / Vol. 82, No. 219 / Wednesday, November 15, 2017, https://www.federalregister.gov/documents/2017/11/15/2017-23953/medicare-program-revisions-to-payment-policies-under-the-physician-fee-schedule-and-other-revisions

[11]Use the Refill/Analysis/Reprogramming codes only for follow-up services. NCCI edits do not allow these codes to be assigned at the time of pump implantation.

[12]Code 62367 is used for pump interrogation only (eg, determining the current programming, assessing the device's functions such as battery voltage and settings, and retrieving or downloading stored data for review). Code 62368 is used when the pump is both interrogated and reprogrammed. Code 62369 is used when the pump is interrogated, reprogrammed and refilled by hospital ancillary staff, eg nurse. Code 62370 is used when the pump is interrogated, reprogrammed, and refilled by the physician or equivalent, eg, nurse practitioner.

[13]Codes 95990 and 95991 are not displayed because they are not used with TDD therapy. As defined, these codes are appropriate for analysis, refilling and maintenance of non-programmable intrathecal pumps. TDD therapy uses programmable pumps, which require reprogramming at the time of refilling (see CPT Assistant, July 2006, p.2).

[14]The AMA has published material (CPT Assistant, September 2008, p.10) confirming the use of 61070 and 75809 for implanted pump catheter dye studies.

[15]Status Q2 indicates that code 75809 is conditionally packaged. Although separately payable in certain unusual circumstances, it is designated as packaged into the primary service when submitted with another code with status indicator "T." In a catheter dye study, its companion code is 61070. Because code 61070 is status "T," code 75809 is packaged and not separately payable in this scenario.

Hospital Inpatient Coding and Payment
MS-DRG Assignments Non-Cancer Pain

Under Medicare's DRG methodology for hospital inpatient payment, each inpatient stay is assigned to **one** of about 755 diagnosis related groups, based on the ICD-10-CM codes assigned to the diagnoses and procedure. Only one DRG is assigned by inpatient stay, regardless of the number of procedures performed. As you will see below, reimbursement is cited as a range – and the ranges can be considerable. (For example, catheter only removal DRG ranges from $10,474-$31,694. This range is based on whether or not major complications or comorbidities exist. Additionally, the range is affected by whether or not the complications or comorbidities were identified prior to hospital admittance or after.

Please note that the DRG change considerably when the pain is designated as "cancer pain" although as a general rule, reimbursement rates do not change significantly.

The following table shows MS-DRG assignments to specific procedure and diagnosis along with national Medicare average payments for non-cancer pain for the inpatient hospital setting.

Procedure	Scenario	MS-DRG[1]	MS-DRG Title[1,2]	Relative Weight[1]	2018 Medicare National Average[3]
Screening Test[4]	Pain Disorder	091	Other disorders of the nervous system W MCC	1.5400	$9,281
		092	Other disorders of the nervous system W CC	0.9368	$5,646
		093	Other disorders of the nervous system W/O CC/MCC	0.7290	$4,393
Screening Test	Caualgia, reflex sympathetic dystrophy, postherpetic neuralgia, phantom limb syndrome, and	073	Cranial and Peripheral Nerve Disorders W MCC	1.4038	$8,460
		074	Cranial and Peripheral Nerve Disorder W/O MCC	0.9535	$5,746

Hospital Inpatient Coding and Payment (Non Cancer-Pain)

Procedure	Scenario	MS-DRG[1]	MS-DRG Title[1,2]	Relative Weight[1]	2018 Medicare National Average[3]
Screening Test	Failed back syndrome, radicular syndrome, and radiculitis due to disc	551	Medical Back Problems W MCC	1.5533	$9,361
		552	Medical Back Problems W/O MCC	0.8938	$5,386
	Arachnoiditis	097	Non-Bacterial Infections of the nervous system except viral meningitis W MCC	3.4041	$20,515
		098	Non-Bacterial Infections of the nervous system except viral meningitis W CC	1.8736	$11,291
		099	Non-Bacterial Infections of the nervous system except viral meningitis W/O CC/MCC	1.2059	$7,267
Screening Test	Collapsed Vertebrae	542	Pathological Fractures and Musculoskeletal Malignancy W MCC	1.8104	$10,910
		543	Pathological Fractures and Musculoskeletal Malignancy W CC	1.0798	$6,507
		544	Pathological Fractures and Musculoskeletal Malignancy W/O CC/MCC	0.7758	$4,675

Hospital Inpatient Coding and Payment (Non Cancer-Pain), (continued)

Procedure	Scenario		MS-DRG[1]	MS-DRG Title[1,2]	Relative Weight[1]	2018 Medicare National Average[3]
Implantation	Whole system implant (pump plus catheter)[5] Pump only implant	Nervous system disorders	040	Peripheral/Cranial Nerve and Other Nervous System Procedures W MCC	3.8078	$22,948
			041	Peripheral/Cranial Nerve and Other Nervous System Procedures W CC	2.3311	$14,048
			042	Peripheral/Cranial Nerve and Other Nervous System Procedures W/O CC/MCC	1.9105	$11,514
		Musculoskeletal disorders	515	Other Musculoskeletal System and Connective Tissue OR Procedure W MCC	2.9195	$17,594
			516	Other Musculoskeletal System and Connective Tissue OR Procedure W CC	1.882	$11,342
			517	Other Musculoskeletal System and Connective Tissue OR Procedure W/O CC/MCC	1.43608	$8,655
	Catheter only implant	This code is not considered a significant procedure for the purpose of DRG assignment. A non-surgical (ie, medical) DRG is assigned to the stay according to the principal diagnosis. The DRGs displayed for the screening trial are common.				
Replacement	Whole system replacement (pump plus catheter)[6]	Nervous system disorders	028	Spinal Procedures W MCC	5.5586	$33,499
			029	Spinal Procedures W CC	3.2737	$19,729
			030	Spinal Procedures W/O CC/MCC	2.133	$12,856
	Catheter only replacement	Musculoskeletal disorders	518	Back and Neck Procedures Except Spinal Fusion W MCC	2.893	$17,435
			519	Back and Neck Procedures Except Spinal Fusion W CC	1.8038	$10,871
			520	Back and Neck Procedures Except Spinal Fusion W/O CC/MCC	1.2966	$7814

Hospital Inpatient Coding and Payment (Non Cancer-Pain), (continued)

Procedure	Scenario		MS-DRG[1]	MS-DRG Title[1,2]	Relative Weight[1]	2018 Medicare National Average[3]
Replacement	Pump only replacement	Nervous system disorders	040	Peripheral/Cranial Nerve and Other Nervous System Procedures W MCC	3.8078	$22,948
			041	Peripheral/Cranial Nerve and Other Nervous System Procedures W CC	2.3311	$14,048
			042	Peripheral/Cranial Nerve and Other Nervous System Procedures W/O CC/MCC	1.9105	$11,514
		Musculoskeletal disorders	515	Other Musculoskeletal System and Connective Tissue OR Procedure W MCC	2.9195	$17,594
			516	Other Musculoskeletal System and Connective Tissue OR Procedure W CC	1.882	$11,342
			517	Other Musculoskeletal System and Connective Tissue OR Procedure W/O CC/MCC	1.43608	$8,655
Removal (without replacement)[7]	Whole system removal (pump plus catheter)[8]		028	Spinal Procedures W MCC	5.5586	$33,499
			029	Spinal Procedures W CC	3.2737	$19,729
			030	Spinal Procedures W/O CC/MCC	2.133	$12,856
	Pump only removal		These codes are considered significant procedures for the purpose of DRG assignment. A non-surgical (ie, medical) DRG is assigned to the stay according to the principal diagnosis.			
	Catheter only removal[9]		028	Spinal Procedures W MCC	5.5586	$33,499
			029	Spinal Procedures W CC	3.2737	$19,729
			030	Spinal Procedures W/O CC/MCC	2.133	$12,856

Hospital Inpatient Coding and Payment (Non Cancer-Pain), (continued)

Procedure	Scenario	MS-DRG[1]	MS-DRG Title[1,2]	Relative Weight[1]	2018 Medicare National Average[3]
Revision[7]	Catheter revision (intrathecal portion)	028	Spinal Procedures W MCC	5.5586	$33,499
		029	Spinal Procedures W CC	3.2737	$19,729
		030	Spinal Procedures W/O CC/MCC	2.133	$12,856
	Catheter revision (subcutaneous portion)	These codes are not considered significant procedures for the purpose of DRG assignment. A non-surgical (ie, medical) DRG is assigned to the stay according to the principal diagnosis.			
	Pump revision	These codes are not considered significant procedures for the purpose of DRG assignment. A non-surgical (ie, medical) DRG is assigned to the stay according to the principal diagnosis.			

[1]Centers for Medicare & Medicaid Services. Medicare Program: Hospital Inpatient Prospective Payment Systems for Acute Care Hospitals and the Long-Term Care Hospital Prospective Payment System and Fiscal Year 2018 Rates, Federal Register / Vol. 82, No. 155 / Monday, August 14, 2017, https://www.federalregister.gov/documents/2017/08/14/2017-16434/medicare-program-hospital-inpatient-prospective-payment-systems-for-acute-care-hospitals-and-the.

[2]W MCC in MS-DRG titles refers to secondary diagnosis codes that are designated as major complications or comorbidities. MS-DRGs W MCC have at least one major second- ary complication or comorbidity. Similarly, W CC in MS-DRG titles refers to secondary diagnosis codes designated as other (non-major) complications or comorbidities, and MS-DRGs W CC have at least one other (non-major) secondary complication or comorbidity. MS-DRGs W/O CC/MCCs have no secondary diagnoses that are designated as complications or comorbidities, major or otherwise. Note that some secondary diagnoses are only designated as CCs or MCCs when the conditions were present on admis- sion, and do not count as CCs or MCCs when the conditions were acquired in the hospital during the stay.

[3]Payment is based on the average standardized operating amount ($5572.53) plus the capital standard amount ($453.95). Centers for Medicare & Medicaid Services. Medicare Program: Hospital Inpatient Prospective Payment Systems for Acute Care Hospitals and the Long-Term Care Hospital Prospective Payment System Changes and FY2017 Rates; Federal Register / Vol. 82, No. 155 / Monday, August 14, 2017, https://www.federalregister.gov/documents/2017/08/14/2017-16434/medicare-program-hospital-inpatient-prospective-payment-systems-for-acute-care-hospitals-and-the. The payment rate shown is the standardized amounts for facilities with a wage index greater than one. The average standard amounts shown also assume facilities receive the full quality update. The payment will also be adjusted by the Wage Index for specific geographic locality. Therefore, payment for a specific hospital will vary from the stated Medicare national average payment levels shown. Also note that any applicable coinsurance, deductible, and other amounts that are patient obligations are included in the national average payment amount shown.

[4]The ICD-10-PCS procedure codes for screening injections are not considered “significant procedures” for the purpose of MS-DRG assignment. As shown, a non-surgical (ie, medical) DRG is assigned to the stay according to the principal diagnosis.

[5]When the pump and catheter are implanted together as a whole system, the pump implantation code is the “driver” and groups to the DRGs shown.

[6]When the whole system is replaced, the codes for replacement of the catheter become the “driver” and group to the DRGs shown.

[7]Procedures involving device removal without replacement and device revision are typically performed as an outpatient. They are shown here for the occasional scenario where removal or revision requires inpatient admission. In this scenario, an intrathecal pump is classified as a nervous system device, generally resulting in nervous system DRGs as shown.

[8]When the whole system is removed, the code for removal of the catheter is the “driver” and groups to the DRGs shown.

[9]These DRGs are assigned for the codes for surgical removal of the catheter, not removal by pull.

Hospital Inpatient Coding and Payment (Cancer-Pain)

Procedure	Scenario	MS-DRG[1]	MS-DRG Title[1,2]	Relative Weight[1]	2018 Medicare National Average[3]
Screening Test[4]	Neoplasm-related pain	947	Signs and Symptoms W MCC	1.1364	$6,776
		948	Signs and Symptoms W/O MCC	0.7463	$4,450
	Esophagus, stomach, colon, rectal, and anal cancer	374	Digestive Malignancy W MCC	2.0332	$12,124
		375	Digestive Malignancy W CC	1.2246	$7,302
		376	Digestive Malignancy W/O CC/MCC	0.8945	$5,066
	Liver and pancreatic cancer	435	Malignancy of Hepatobiliary System or Pancreas W MCC	1.7396	$10,373
		436	Malignancy of Hepatobiliary System or Pancreas W CC	1.1435	$6,819
		437	Malignancy of Hepatobiliary System or Pancreas W/O CC/MCC	0.9305	$5,549
	Lung, bronchus and trachea cancer	180	Respiratory Neoplasms W MCC	1.6976	$10,123
		181	Respiratory Neoplasms W CC	1.1637	$6,939
		182	Respiratory Neoplasms W/O CC/MCC	0.8167	$4,870
	Bone cancer and pathological fracture due to bone cancer	542	Pathological Fractures and Musculoskeletal and Connective Tissue Malignancy W MCC	1.8446	$10,999
		543	Pathological Fractures and Musculoskeletal and Connective Tissue Malignancy W CC	1.1054	$6,591
		544	Pathological Fractures and Musculoskeletal and Connective Tissue Malignancy W/O CC/MCC	0.7749	$4,621
	Breast cancer	597	Malignant Breast Disorders W MCC	1.7583	$10,485
		598	Malignant Breast Disorders W CC	1.1909	$7,101
		599	Malignant Breast Disorders W/O CC/MCC	0.7094	$4,230

Hospital Inpatient Coding and Payment (Cancer-Pain), (continued)

Procedure	Scenario	MS-DRG[1]	MS-DRG Title[1,2]	Relative Weight[1]	2018 Medicare National Average[3]
Screening Test[4]	Uterine, cervical, and ovarian cancer	754	Malignancy, Female Reproductive System W MCC	1.9107	$11,393
		755	Malignancy, Female Reproductive System W CC	1.1225	$6,693
		756	Malignancy, Female Reproductive System W/O CC/MCC	0.6691	$3,990
	Prostate and testicular cancer	722	Malignancy, Male Reproductive System W MCC	1.6914	$10,086
		723	Malignancy, Male Reproductive System W CC	1.0847	$6,468
		724	Malignancy, Male Reproductive System W/O CC/MCC	0.7356	$4,386
	Kidney and bladder cancer	686	Kidney and Urinary Tract Neoplasms W MCC	1.6710	$9,964
		687	Kidney and Urinary Tract Neoplasms W CC	1.0607	$6,325
		688	Kidney and Urinary Tract Neoplasms W/O CC/MCC	0.6891	$4,109
	Brain and spinal cord cancer	054	Nervous System Neoplasms W MCC	1.3314	$7,939
		055	Nervous System Neoplasms W/O MCC	1.0271	$6,125

Hospital Inpatient Coding and Payment (Cancer-Pain), (continued)

Procedure	Scenario		MS-DRG[1]	MS-DRG Title[1,2]	Relative Weight[1]	2018 Medicare National Average[3]
Implantation and Replacement[5]	Whole system implant (pump plus catheter) Whole system replacement (pump plus catheter) Pump only implant Pump only replacement	Neoplasm-related pain	939	OR Procedure W Diagnoses of Other Contact W Health Services W MCC	3.3068	$19,718
			940	OR Procedure W Diagnoses of Other Contact W Health Services W CC	1.9740	$11,711
			941	OR Procedure W Diagnoses of Other Contact W Health Services W/O CC/MCC	1.4341	$8,551
		Bone cancer and pathologic al fracture due to bone cancer	515	Other Musculoskeletal System and Connective Tissue OR Procedure W MCC	3.1355	$18,697
			516	Other Musculoskeletal System and Connective Tissue OR Procedure W CC	2.0709	$12,349
			517	Other Musculoskeletal System and Connective Tissue OR Procedure W/O CC/MCC	1.7951	$10,704
		Esophageal, stomach, colon, rectal and anal cancer	356	Other Digestive System OR Procedures W MCC	3.8053	$22,959
			357	Other Digestive System OR Procedures W CC	2.0749	$12,372
			358	Other Digestive System OR Procedures W/O CC/MCC	1.3550	$8,080
		Liver and pancreatic cancer	423	Other Hepatobiliary or Pancreas OR Procedures W MCC	4.4817	$26,724
			424	Other Hepatobiliary or Pancreas OR Procedures W CC	2.3553	$14,044
			425	Other Hepatobiliary or Pancreas OR Procedures W/O CC/MCC	1.5207	$9,068

Hospital Inpatient Coding and Payment (Cancer-Pain), (continued)

Procedure	Scenario		MS-DRG[1]	MS-DRG Title[1,2]	Relative Weight[1]	2018 Medicare National Average[3]
Implantation and Replacement[5]	Whole system implant (pump plus catheter) Whole system replacement (pump plus catheter) Pump only implant Pump only replacement	Lung, bronchus and trachea cancer	166	Other Respiratory System OR Procedures W MCC	3.5562	$21,205
			167	Other Respiratory System OR Procedures W CC	1.9550	$11,658
			168	Other Respiratory System OR Procedures W/O CC/MCC	1.3359	$7,966
		Breast cancer	579	Other Skin, Subcutaneous Tissue and Breast Procedures W MCC	2.7198	$16,218
			580	Other Skin, Subcutaneous Tissue and Breast Procedures W CC	1.6483	$9,829
			581	Other Skin, Subcutaneous Tissue and Breast Procedures W/O CC/MCC	1.2666	$7,553
		Uterine, cervical, and ovarian cancer	749	Other Female Reproductive System OR Procedures W CC/MCC	2.7550	$16,428
			750	Other Female Reproductive System OR Procedures W/O CC/MCC	1.2993	$7,748
		Prostate and testicular cancer	715	Other Male Reproductive System OR Procedures for Malignancy W CC/MCC	2.0657	$12,318
			716	Other Male Reproductive System OR Procedures for Malignancy W/O CC/MCC	1.2097	$7,213
		Kidney and bladder cancer	673	Other Kidney and Urinary Tract Procedures W MCC	3.3428	$19,933
			674	Other Kidney and Urinary Tract Procedures W CC	2.2548	$13,445
			675	Other Kidney and Urinary Tract Procedures W/O CC/MCC	1.5477	$9,229

Hospital Inpatient Coding and Payment (Cancer-Pain), (continued)

Procedure	Scenario		MS-DRG[1]	MS-DRG Title[1,2]	Relative Weight[1]	2018 Medicare National Average[3]
Implantation and Replacement[5,6]	Whole system Pump only implant Pump only replacement	Brain and spinal cord cancer[6]	040	Peripheral/Cranial Nerve and Other Nervous System Procedures W MCC	3.7117	$22,133
			041	Peripheral/Cranial Nerve and Other Nervous System Procedures W CC	2.1218	$12,652
			042	Peripheral/Cranial Nerve and Other Nervous System Procedures W/O CC/MCC	1.8984	$11,320
	Whole system replacement (pump plus catheter	Brain and spinal cord cancer[6]	028	Spinal Procedures W MCC	5.5439	$33,058
			029	Spinal Procedures W CC	3.1882	$19,011
			030	Spinal Procedures W/O CC/MCC	1.9008	$11,334
	Catheter only implant	This code is not considered a significant procedure for the purpose of DRG assignment. A non-surgical (ie, medical) DRG is assigned to the stay according to the principal diagnosis. The DRGs displayed for the screening trial are common.				
	Catheter only replacement[7]	Brain and spinal cord cancer	028	Spinal Procedures W MCC	5.5439	$33,058
			029	Spinal Procedures W CC	3.1882	$19,011
			030	Spinal Procedures W/O CC/MCC	1.9008	$11,334
		Other cancers[8]	981	Extensive OR Procedure Unrelated to Principal Diagnosis W MCC	4.9451	$29,487
			982	Extensive OR Procedure Unrelated to Principal Diagnosis W CC	2.7320	$16,291
			983	Extensive OR Procedure Unrelated to Principal Diagnosis W/O CC/MCC	1.7815	$10,623

Hospital Inpatient Coding and Payment (Cancer-Pain), (continued)

Procedure	Scenario	MS-DRG[1]	MS-DRG Title[1,2]	Relative Weight[1]	2018 Medicare National Average[3]
Removal (without replacement)[9]	Whole system removal (pump plus catheter)[10]	028	Spinal Procedures W MCC	5.5439	$33,058
		029	Spinal Procedures W CC	3.1882	$19,011
		030	Spinal Procedures W/O CC/MCC	1.9008	$11,334
	Pump only removal	These codes are not considered significant procedures for the purpose of DRG assignment. A non-surgical (ie, medical) DRG is assigned to the stay according to the principal diagnosis.			
	Catheter only removal[11]	028	Spinal Procedures W MCC	5.5439	$33,058
		029	Spinal Procedures W CC	3.1882	$19,011
		030	Spinal Procedures W/O CC/MCC	1.9008	$11,334
Revision[9]	Catheter revision (intrathecal portion)	028	Spinal Procedures W MCC	5.5439	$33,058
		029	Spinal Procedures W CC	3.1882	$19,011
		030	Spinal Procedures W/O CC/MCC	1.9008	$11,334
	Catheter revision (subcutaneous portion)	These codes are not considered significant procedures for the purpose of DRG assignment. A non-surgical (ie, medical) DRG is assigned to the stay according to the principal diagnosis.			
	Pump revision	These codes are not considered significant procedures for the purpose of DRG assignment. A non-surgical (ie, medical) DRG is assigned to the stay according to the principal diagnosis.			

[1]Centers for Medicare & Medicaid Services. Medicare Program: Hospital Inpatient Prospective Payment Systems for Acute Care Hospitals and the Long-Term Care Hospital Prospective Payment System and Fiscal Year 2017 Rates, Federal Register / Vol. 81, No. 162 / Monday, August 22, 2016 https://www.gpo.gov/fdsys/pkg/FR-2016-08-22/pdf/2016-18476.pdf.

[2]W MCC in MS-DRG titles refers to secondary diagnosis codes that are designated as major complications or comorbidities. MS-DRGs W MCC have at least one major secondary complication or comorbidity. Similarly, W CC in MS-DRG titles refers to secondary diagnosis codes designated as other (non-major) complications or comorbidities, and MS-DRGs W CC have at least one other (non-major) secondary complication or comorbidity. MS-DRGs W/O CC/MCCs have no secondary diagnoses that are designated as complications or comorbidities, major or otherwise. Note that some secondary diagnoses are only designated as CCs or MCCs when the conditions were present on admission, and do not count as CCs or MCCs when the conditions were acquired in the hospital during the stay.

[3]Payment is based on the average standardized operating amount ($5,516.14) plus the capital standard amount ($446.79). Centers for Medicare & Medicaid Services. Medicare Program: Hospital Inpatient Prospective Payment Systems for Acute Care Hospitals and the Long-Term Care Hospital Prospective Payment System Changes and FY2017 Rates; Federal Register / Vol. 81, No. 162 / Monday, August 22, 2016, https://www.gpo.gov/fdsys/pkg/FR-2016-08-22/pdf/2016-18476.pdf. The payment rate shown is the standardized amounts for facilities with a wage index greater than one. The average standard amounts shown also assume facilities receive the full quality update. The payment will also be adjusted by the Wage Index for specific geographic locality. Therefore, payment for a specific hospital will vary from the stated Medicare national average payment levels shown. Also note that any applicable coinsurance, deductible, and other amounts that are patient obligations are included in the national average payment amount shown.

[4]The ICD-10-PCS procedure codes for screening injections are not considered “significant procedures” for the purpose of MS-DRG assignment. As shown, a non-surgical (ie, medical) DRG is assigned to the stay according to the principal diagnosis.

Hospital Inpatient Coding and Payment (Cancer-Pain), (continued)

[5]When the pump and catheter are implanted or replaced together as a whole system for cancer diagnoses, the pump implantation code is the “driver” and groups to the DRGs shown.

[6]The one exception is for nervous system cancer. Here, specifically when the whole system is replaced, the codes for replacement of the catheter become the “driver” and group to the DRGs shown.

[7]When the catheter is replaced, the code for catheter removal is the “driver” and groups to the DRGs shown.

[8]Because catheter removal is primarily classified as a nervous system procedure, the “mismatch” DRGs of 981, 982, and 983 are assigned when performed for cancers of other body systems. These DRGs are valid and payable.

[9]Procedures involving device removal without replacement and device revision are typically performed as an outpatient. They are shown here for the occasional scenario where removal or revision requires inpatient admission. In this scenario, an intrathecal pump is classified as a nervous system device, generally resulting in nervous system DRGs as shown.

[10]When the whole system is removed, the code for removal of the catheter is the “driver” and groups to the DRGs shown.

[11]These DRGs are assigned for the codes for surgical removal of the catheter, not removal by pull.