Appendix 1: ICD-9 and CPT Codes for Inclusion/Exclusion Criteria Appendix 1a: Drugs classified as opioids

The following drugs were identified as opioids with over 10,000 NDC codes: Buprenorphine, Codeine, Dihydrocodeine, Fentanyl LA, Fentanyl SA, Hydrocodone LA, Hydrocodone SA, Hydromorphone LA, Hydromorphone SA, Levomethadyl, Levorphanol, Meperidine, Methadone, Morphine LA, Morphine SA, Naltrexone, Opium, Oxycodone LA, Oxycodone SA, Oxymorphone LA, Oxymorphone SA, Pentazocine, Propoxyphene, Tapentadol LA, Tapentadol SA, Tramadol LA, Tramadol SA.

Appendix 1b: ICD-9 LBP Diagnoses Inclusion/Exclusion Criteria

Appenaix	1b: ICD-9 LBP Diagnoses Inclusion/Exclusion (riteria		
ICD-9 code	Description	Include as location- specific LBP index diagnosis	Exclusion if in clean period prior to index diagnosis	Exclusion if on index date or within 3 months afterwards
353.4	Lumbosacral root lesions, not elsewhere classified	X	Х	
721.3	Lumbosacral spondylosis without myelopathy	х	Х	
721.42	Spondylosis with myelopathy, lumbar region Displacement of thoracic or lumbar intervertebral disc without	Х	X X	
722.1	myelopathy	X		
722.32	Schmorl nodes, lumbar region	X	Х	
722.51	Degeneration of thoracic or lumbar intervertebral disc	X	Х	
722.52	Degeneration of lumbar or lumbosacral intervertebral disc	х	Х	
722.93	Other and unspecified disc disorder of lumbar region	х	х	
724.2	Lumbago	x	Х	
724.3	Sciatica	х	х	
724.4	Thoracic or lumbosacral neuritis or radiculitis, unspecified	x	х	
724.5	Unspecified backache	x	х	
724.6	Disorders of sacrum	х	х	
739.3	Non-allopathic lesion of lumbar region, not elsewhere classified	х	х	
739.4	Non-allopathic lesion of sacral region, not elsewhere classified	х	х	
846.0	Sprain and strain of lumbosacral (joint) (ligament)	х	х	
846.1	Sprain and strain of sacroiliac (ligament)	x	х	
846.2	Sprain and strain of sacrospinatus (ligament)	х	х	
846.3	Sprain and strain of sacrotuberous (ligament)	х	х	
846.8	Other specified sites of sacroiliac region sprain and strain	x	x	
846.9	Unspecified site of sacroiliac region sprain and strain	х	х	
847.2	Lumbar sprain and strain	x	х	
847.3	Sprain and strain of sacrum	х	х	
847.4	Sprain and strain of coccyx	х	х	
722.10	Displacement of lumbar intervertebral disc without myelopathy	х	х	
722.73	Intervertebral disc herniation Intervertebral disc disorder with myelopathy lumbar region	x	x	
724.02	Spinal stenosis, lumbar region, without neurogenic claudication	х	х	
724.03	Spinal stenosis, lumbar region, with neurogenic claudication	х	x	
756.11	Spondylolysis, lumbosacral region (congenital)	х	Х	
721.5	Kissing spine		х	
721.6	Ankylosing vertebral hyperostosis		х	
721.7	Traumatic spondylopathy		Х	
721.8	Other allied disorders of spine		х	

721.90	Spondylosis of unspecified site without mention of myelopathy	х	
721.91	Spondylosis of unspecified site with myelopathy	х	
722.30	Schmorl nodes, unspecified region	х	
722.90	Other and unspecified disc disorder of unspecified region	х	
724.8	Other symptoms referable to back	х	
724.9	Other unspecified back disorders	х	
847.9	Sprain and strain of unspecified site of back	х	
722.2	Displacement of intervertebral disc, site unspecified, w/o myelopathy	х	
722.6	Degeneration of intervertebral disc site unspecified	х	
724.00	Spinal stenosis of unspecified region	х	
724.09	Spinal stenosis of other region	х	
738.4	Acquired spondylolisthesis	х	
738.5	Other acquired deformity of back or spine	х	
756.12	Spondylolisthesis (congenital)	х	
806.0-	construction (congenitary)		
806.9	Fracture of vertebral column with spinal cord injury	Х	х
805.0-805.9	Fracture of vertebral column without mention of spinal cord injury	×	x
733.1x	Pathologic fractures	х	х
839.00-			
839.59	Vertebral dislocations	х	х
720.0– 720.9	Inflammatory spondyloarthropathies	x	x
324.1	Intraspinal abscess	х	х
140-239.9	Cancer/neoplasms	х	х
730–730.99	Osteomyelitis	х	х
353.2	Cervical root lesions, not elsewhere classified		
353.3	Thoracic root lesions, not elsewhere classified		
721.0	Cervical spondylosis without myelopathy		
721.1	Cervical spondylosis with myelopathy		
721.2	Thoracic spondylosis without myelopathy		
721.41	Spondylosis with myelopathy, thoracic region Displacement of cervical intervertebral disc without		
722.0	myelopathy Displacement of thoracic intervertebral disc without		
722.11	myelopathy		
722.4	Degeneration of cervical intervertebral disc		
722.71	Intervertebral disc disorder with myelopathy, cervical region		
722.72	Intervertebral disc disorder with myelopathy, thoracic region		
722.81	Postlaminectomy syndrome, cervical region		
722.82	Postlaminectomy syndrome, thoracic region		
722.91	Other and unspecified disc disorder, cervical region		
722.92	Other and unspecified disc disorder, thoracic region		

723.4	Brachial neuritis or radiculitis NOS		
724.01	Spinal stenosis, thoracic region		

Appendix 1c: ICD-9 Procedures for Exclusion Critiera

ICD-9 code	Description
03.01	Removal Of Foreign Body From Spinal Canal
03.02	Reopening Of Laminectomy Site
03.09	Other Exploration And Decompression Of Spinal Cana
03.1	Division Of Intraspinal Nerve Root
03.2x	chordotomy
03.4	Excision Or Destruction Of Lesion Of Spinal Cord Or Spinal Meninges
03.5x	Plastic Operations On Spinal Cord Structures (multiple subcat.)
03.6	Lysis Of Adhesions Of Spinal Cord And Nerve Roots
03.7	Shunt Of Spinal Theca
03.8	Injection Of Destructive Agent Into Spinal Canal
03.93	Insert/Replace Spinal Neurostimulator
03.94	Removal Of Spinal Neurostimulator
03.97	Revision Of Spinal Thecal Shunt
03.98	Removal Of Spinal Thecal Shunt
80.50	Excision Or Destruction Of Intervertebral Disc, Unspecified
80.51	Excision Of Intervertebral Disc
80.52	Intervertebral Chemonucleolysis
80.53	Repair Of The Anulus Fibrosus With Graft Or Prosthesis
80.54	Other And Unspecified Repair Of The Anulus Fibrosus
80.59	Other Destruction Of Intervertebral Disc
81.00	Spinal Fusion, Not Otherwise Specified
81.01	Atlas-Axis Spinal Fusion
81.02	Other Cervical Fusion Of The Anterior Column, Anterior Technique
81.03	Other Cervical Fusion Of The Posterior Column, Posterior Technique
81.04	Dorsal And Dorsolumbar Fusion Of The Anterior Column, Anterior Technique
81.05	Dorsal And Dorsolumbar Fusion Of The Posterior Column, Posterior Technique
81.06	Lumbar And Lumbosacral Fusion Of The Anterior Column, Anterior Technique
81.07	Lumbar And Lumbosacral Fusion Of The Posterior Column, Lateral Transverse Process Technique
81.08	Lumbar And Lumbosacral Fusion Of The Anterior Column, Posterior Technique
81.09	Other spinal fusion? No longer in use?
81.30	Refusion Of Spine, Not Otherwise Specified
81.31	Refusion Of Atlas-Axis Spine
81.32	Refusion Of Other Cervical Spine, Anterior Column, Anterior Technique
81.33	Refusion Of Other Cervical Spine, Posterior Column, Posterior Technique
81.34	Refusion Of Dorsal And Dorsolumbar Spine, Anterior Column, Anterior Technique
81.35	Refusion Of Dorsal And Dorsolumbar Spine, Posterior Column, Posterior Technique
81.36	Refusion Of Lumbar And Lumbosacral Spine, Anterior Column, Anterior Technique
81.37	Refusion Of Lumbar And Lumbosacral Spine, Posterior Column, Lateral Transverse Process Technique
81.38	Refusion Of Lumbar And Lumbosacral Spine, Anterior Column, Posterior Technique

81.39	Refusion Of Spine, Not Elsewhere Classified
81.63	Fusion Or Refusion Of 4-8 Vertebrae
81.64	Fusion Or Refusion Of 9 Or More Vertebrae
84.51	Insertion Of Interbody Spinal Fusion Device
84.58	Implantation of interspinous process decompression device
84.59	Insert Of Other Spinal Devices
84.60	Insertion Of Spinal Disc Prosthesis; Not Otherwise Specified
84.61	Insertion Of Partial Spinal Disc Prosthesis, Cervical
84.62	Insertion Of Total Spinal Disc Prosthesis, Cervical
84.63	Insertion Of Spinal Disc Prosthesis, Thoracic
84.64	Insertion Of Partial Spinal Disc Prosthesis, Lumbosacral
84.65	Insertion Of Total Spinal Disc Prosthesis, Lumbosacral
84.66	Revision Or Replacement Of Artificial Spinal Disc Prosthesis
84.67	Revision Or Replacement Of Artificial Spinal Disc Prosthesis, Thoracic
84.68	Revision Or Replacement Of Artificial Spinal Disc Prosthesis, Lumbosacral
84.69	Revision Or Replacement Of Artificial Spinal Disc Prosthesis, Not Otherwise Specified
84.80	Insertion Or Replacement Of Interspinous Process Device(s)
84.81	Revision Of Interspinous Process Device(s)
84.82	Insertion Or Replacement Of Pedicle-Based Dynamic Stabilization Device(s)
84.83	Revision Of Pedicle-Based Dynamic Stabilization Device(s)
85.84	Insertion Or Replacement Of Facet Replacement Device(s)
84.85	Revision Of Facet Replacement Device(s)

Appendix 1d: CPT Codes for Exclusion Criteria

CPT code	Description
00630	anesthesia for procedures in lumbar region; not otherwise specified.
00670	anesthesia for extensive spine and spinal cord procedures.
06300	vertebral corpectomy (vertebral body resection), partial or complete, for excision of intraspinal lesion, single segment; extradural, cervical
20250	biopsy, vertebral body, open, thoracic
20930	allograft for spine surgery only; morselized (list separately in addition to code for primary procedure)
20936	autograft for spine surgery only (includes harvesting the graft); local (eg, ribs, spinous process, or laminar fragments) obtained from same incision
20937	autograft for spine surgery only (includes harvesting the graft); morselized (through separate skin or fascial incision) (list separately in addition to code for primary procedure)
20938	autograft for spine surgery only (includes harvesting the graft); structural, bicortical or tricortical (through separate skin or fascial incision) (list separately in addition to code for primary procedure)
22010	incision & drainage: deep abscess: posterior spine; cervical/thoracic/cervicothoracic
22015	incision & drainage: deep abscess: posterior spine; lumbar/sacral/lumbosacral
22100	partial excision of posterior vertebral component (eg, spinous process, lamina or facet) for intrinsic bony lesion, single vertebral segment; cervical
22101	partial excision of posterior vertebral component (eg, spinous process, lamina or facet) for intrinsic bony lesion, single vertebral segment; thoracic
22102	partial excision of posterior vertebral component (eg, spinous process, lamina or facet) for intrinsic bony lesion, single vertebral segment; lumbar
22103	partial excision of posterior vertebral component (eg, spinous process, lamina or facet) for intrinsic bony lesion, single vertebral segment; each additional segment
22110	partial excision of vertebral body, for intrinsic bony lesion, without decompression of spinal cord or nerve root(s), single vertebral segment; cervical
22112	partial excision of vertebral body, for intrinsic bony lesion, without decompression of spinal cord or nerve root(s), single vertebral segment; thoracic
22114	partial excision of vertebral body, for intrinsic bony lesion, without decompression of spinal cord or nerve root(s), single vertebral segment; lumbar
22116	partial excision of vertebral body, for intrinsic bony lesion, without decompression of spinal cord or nerve root(s), single vertebral segment; each additional vertebral segment
22206	osteotomy of spine, posterior or posterolateral approach, three columns, one vertebral segment (eg, pedicle/vertebral body subtraction); thoracic
22207	osteotomy of spine, posterior or posterolateral approach, three columns, one vertebral segment (eg, pedicle/vertebral body subtraction); lumbar
22208	osteotomy of spine, posterior or posterolateral approach, three columns, one vertebral segment (eg, pedicle/vertebral body subtraction); each additional vertebral segment
22210	osteotomy of spine, posterior or posterolateral approach, one vertebral segment; cervical
22212	osteotomy of spine, posterior or posterolateral approach, one vertebral segment; thoracic
22214	osteotomy of spine, posterior or posterolateral approach, one vertebral segment; lumbar
22216	osteotomy of spine, posterior or posterolateral approach, one vertebral segment; each additional vertebral segment (list separately in addition to primary procedure)
22220	osteotomy of spine, including discectomy, anterior approach, single vertebral segment; cervical

22222	osteotomy of spine, including discectomy, anterior approach, single vertebral segment; thoracic
22224	osteotomy of spine, including discectomy, anterior approach, single vertebral segment; lumbar
22226	osteotomy of spine, including discectomy, anterior approach, single vertebral segment; each additional vertebral segment
22305	closed treatment of vertebral process fracture(s)
22310	closed treatment of vertebral body fracture(s), without manipulation, requiring and including casting or bracing
22315	closed treatment of vertebral fracture(s) and/or dislocation(s) requiring casting or bracing, with and including casting and/or bracing, with or without anesthesia, by manipulation or traction
22318	open treatment and/or reduction of odontoid fracture(s) and or dislocation(s) (including os odontoideum), anterior approach, including placement of internal fixation; without grafting
22319	open treatment and/or reduction of odontoid fracture(s) and or dislocation(s) (including os odontoideum), anterior approach, including placement of internal fixation; with grafting
22325	open treatment and/or reduction of vertebral fracture(s) and/or dislocation(s), posterior approach, 1 fractured vertebra or dislocated segment; lumbar
22326	open treatment and/or reduction of vertebral fracture(s) and/or dislocation(s), posterior approach, one fractured vertebra or dislocated segment; cervical
22327	open treatment and/or reduction of vertebral fracture(s) and/or dislocation(s), posterior approach, one fractured vertebra or dislocated segment; thoracic
22328	open treatment and/or reduction of vertebral fracture(s) and/or dislocation(s), posterior approach, one fractured vertebra or dislocated segment; each additional fractured vertebra or dislocated segment
22505	manipulation of spine requiring anesthesia, any region
22511	percutaneous vertebroplasty (bone biopsy included when performed), 1 vertebral body, unilateral or bilateral injection, inclusive of all imaging guidance; lumbosacral
22513	percutaneous vertebral augmentation, including cavity creation (fracture reduction and bone biopsy included when performed) using mechanical device (eg, kyphoplasty), 1 vertebral body, unilateral or bilateral cannulation, inclusive of all imaging guidance; thoracic
22514	percutaneous vertebral augmentation, including cavity creation (fracture reduction and bone biopsy included when performed) using mechanical device (eg, kyphoplasty), 1 vertebral body, unilateral or bilateral cannulation, inclusive of all imaging guidance; lumbar
22515	percutaneous vertebral augmentation, including cavity creation (fracture reduction and bone biopsy included when performed) using mechanical device (eg, kyphoplasty), 1 vertebral body, unilateral or bilateral cannulation, inclusive of all imaging guidance; each additional thoracic or lumbar vertebral body (list separately in addition to code for primary procedure)
22520	percutaneous vertebroplasty, one vertebral body, unilateral or bilateral injection; thoracic
22521	percutaneous vertebroplasty, one vertebral body, unilateral or bilateral injection; lumbar
22522	percutaneous vertebroplasty each additional thoracic or lumbar vertebral body
22523	percutaneous vertebral augmentation, including cavity creation (fracture reduction and bone biopsy included when performed) using mechanical device, one vertebral body, unilateral or bilateral cannulation (eg, kyphoplasty); thoracic
22524	percutaneous vertebral augmentation, including cavity creation (fracture reduction and bone biopsy included when performed) using mechanical device, one vertebral body, unilateral or bilateral cannulation (eg, kyphoplasty); lumbar

22525	percutaneous vertebral augmentation, including cavity creation (fracture reduction and bone biopsy included when performed) using mechanical device, one vertebral body, unilateral or bilateral cannulation (eg, kyphoplasty); each additional thoracic or lumbar vertebral body
22526	percutaneous intradiscal electrothermal annuloplasty, unilateral or bilateral including fluoroscopic guidance; single level
22527	percutaneous intradiscal electrothermal annuloplasty, unilateral or bilateral including fluoroscopic guidance; one or more additional levels
22532	arthrodesis, lateral extracavitary technique, including minimal discectomy to prepare interspace (other than for decompression); thoracic
22533	arthrodesis, lateral extracavitary technique, including minimal discectomy to prepare interspace (other than for decompression); lumbar
22534	add-on code to describe each additional vertebral segment on which the arthrodesis using lateral extracavitary approach is performed, after the first segment. this code should be used in conjunction with cpt code 22532 and 22533.
22548	arthrodesis, anterior transoral or extraoral technique, clivus-c1-c2 (atlas-axis), with or without excision of odontoid process
22551	arthrodesis, anterior interbody, including disc space preparation, discectomy, osteophytectomy and decompression of spinal cord and/or nerve roots; cervical below c2
22554	arthrodesis, anterior interbody technique, including minimal discectomy to prepare interspace (other than for decompression); cervical below c2
22556	arthrodesis, anterior interbody technique, including minimal discectomy to prepare interspace (other than for decompression); thoracic
22558	anterior lumbar interbody fusion, first interspace
22585	anterior lumbar interbody fusion, additional interspace
22586	arthrodesis, pre-sacral interbody technique, including disc space preparation, discectomy, with posterior instrumentation, with image guidance, includes bone graft when performed, 15-s1 interspace
22590	arthrodesis, posterior technique, craniocervical (occiput-c2)
22595	arthrodesis, posterior technique, atlas-axis (c1-c2)
22600	arthrodesis, posterior or posterolateral technique, single level; cervical below c2 segment
22610	arthrodesis, posterior or posterolateral technique, single level; thoracic (with or without lateral transverse technique)
22612	arthrodesis, posterior or posterolateral technique, single level; lumbar (with or without lateral transverse technique)
22614	arthrodesis, posterior or posterolateral technique, single level; each additional vertebral segment
22630	arthrodesis, posterior interbody technique, including laminectomy and/or discectomy to prepare interspace (other than for decompression), single interspace; lumbar
22632	posterior lumbar interbody fusion, each additional interspace
22633	arthrodesis, combined posterior or posterolateral technique with posterior interbody technique including laminectomy and/or discectomy sufficient to prepare interspace (other than for decompression), single interspace and segment; lumbar
22634	arthrodesis, combined posterior or posterolateral technique with posterior interbody technique including laminectomy and/or discectomy sufficient to prepare interspace (other than for decompression), single interspace and segment; each additional interspace and segment
22800	arthrodesis, posterior, for spinal deformity, with or without cast; up to 6 vertebral segments

22802	arthrodesis, posterior, for spinal deformity, with or without cast; 7 to 12 vertebral segments
22804	arthrodesis, posterior, for spinal deformity, with or without cast; 13 or more vertebral segments
22808	arthrodesis, anterior, for spinal deformity, with or without cast; 2 to 3 vertebral segments
22810	arthrodesis, anterior, for spinal deformity, with or without cast; 4 to 7 vertebral segments
22812	arthrodesis, anterior, for spinal deformity, with or without cast; 8 or more vertebral segments
22818	kyphectomy, circumferential exposure of spine and resection of vertebral segment(s) (including body and posterior elements); single or 2 segments
22819	kyphectomy, circumferential exposure of spine and resection of vertebral segment(s) (including body and posterior elements); 3 or more segments
22830	exploration of spinal fusion
22840	posterior non-segmental instrumentation (eg, harrington rod technique, pedicle fixation across one interspace, atlantoaxial transarticular screw fixation, sublaminar wiring at c1, facet screw fixation)
22841	internal spinal fixation by wiring of spinous processes
22842	posterior segmental instrumentation (eg, pedicle fixation, dual rods with multiple hooks and sublaminar wires); 3 to 6 vertebral segments
22843	posterior segmental instrumentation (eg, pedicle fixation, dual rods with multiple hooks and sublaminar wires); 7 to 12 vertebral segments
22844	posterior segmental instrumentation (eg, pedicle fixation, dual rods with multiple hooks and sublaminar wires); 13 or more vertebral segments
22845	anterior instrumentation; 2 to 3 vertebral segments
22846	anterior instrumentation; 4 to 7 vertebral segments
22847	anterior instrumentation; 8 or more vertebral segments
22848	pelvic fixation (attachment of caudal end of instrumentation to pelvic bony structures) other than sacrum
22849	reinsertion of spinal fixation device
22850	removal of posterior nonsegmental instrumentation (eg, harrington rod)
22851	application of intervertebral biomechanical device(s) (eg, synthetic cage(s), threaded bone dowel(s), methylmethacrylate) to vertebral defect or interspace
22852	removal of posterior segmental instrumentation
22855	removal of anterior instrumentation
22856	total disc arthroplasty (artificial disc), anterior approach, including discectomy with end plate preparation (includes osteophytectomy for nerve root or spinal cord decompression and microdissection), single interspace, cervical
22857	total disc arthroplasty (artificial disc), anterior approach, including discectomy to prepare interspace (other than for decompression), single interspace, lumbar
22861	revision including replacement of total disc arthroplasty (artificial disc), anterior approach, single interspace; cervical
22862	removal of total disc arthroplasty (artificial disc), anterior approach, single interspace; cervical
22864	removal of total disc arthroplasty (artificial disc), anterior approach, single interspace; cervical
22865	removal of total disc arthroplasty (artificial disc), anterior approach, single interspace; lumbar
27096	injection procedure for si joint, arthrography, and/or anesthetic steroid
62263	percutaneous lysis of epidural adhesions using solution injection or mechanical means, including radiologic localization, multiple adhesiolysis sessions, two or more days

62264	percutaneous lysis of epidural adhesions using solution injection or mechanical means, including radiologic localization, multiple adhesiolysis sessionsone day
62281	injection/infusion of neurolytic substance (eg, alcohol, phenol, iced saline solutions), with or without other therapeutic substance; epidural, cervical or thoracic
62282	injection/infusion of neurolytic substance (eg, alcohol, phenol, iced saline solutions), with or without other therapeutic substance; epidural, lumbar, sacral (caudal)
62287	aspiration procedure, percutaneous, of nucleus pulposus of intervertebral disk, any method, single or multiple levels, lumbar.
62292	injection procedure for chemonucleolysis, including discography, intervertebral disc, single or multiple levels, lumbar
62310	injection, single (not via indwelling catheter), not including neurolytic substances, with or without contrast (for either localization or epidurography), of diagnostic or therapeutic substance(s) (including anesthetic, antispasmodic, opioid, steroid, other solution), epidural or subarachnoid; cervical or thoracic
62311	injection, single (not via indwelling catheter), not including neurolytic substances, with or without contrast (for either localization or epidurography), of diagnostic or therapeutic substance(s) (including anesthetic, antispasmodic, opioid, steroid, other solution), epidural or subarachnoid; lumbar, sacral (caudal)
62318	injection, including catheter placement, continuous infusion or intermittent bolus, not including neurolytic substances, with or without contrast (for either localization or epidurography), of diagnostic or therapeutic substance(s) (including anesthetic, antispasmodic, opioid, steroid, other solution), epidural or subarachnoid; cervical or thoracic
62319	injection, including catheter placement, continuous infusion or intermittent bolus, not including neurolytic substances, with or without contrast (for either localization or epidurography), of diagnostic or therapeutic substance(s) (including anesthetic, antispasmodic, opioid, steroid, other solution), epidural or subarachnoid; lumbar, sacral (caudal)
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) section
62323	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); with imaging guidance (ie, fluoroscopy or ct)
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
62351	implantation, revision or repositioning of tunneled intrathecal or epidural catheter, for long-term medication administration via an external pump or implantable reservoir/infusion pump; with laminectomy
62355	removal of previously implanted intrathecal or epidural catheter.
62360	implantation or replacement of device for intrathecal or epidural drug infusion; subcutaneous reservoir
62361	implantation or replacement of device for intrathecal or epidural drug infusion; nonprogrammable pump
62362	implantation or replacement of device for intrathecal or epidural drug infusion; programmable pump, including preparation of pump, with or without programming
62365	removal of subcutaneous reservoir or pump, previously implanted for intrathecal or epidural infusion
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

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
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
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 physician's skill)
63001	laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (e.g., spinal stenosis), 1 or 2 vertebral segments; cervical
63003	laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (e.g., spinal stenosis), 1 or 2 vertebral segments; thoracic
63005	lumbar laminectomy without facetectomy, foraminotomy or discectomy, 1 or 2 segments
63011	laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (e.g., spinal stenosis), 1 or 2 vertebral segments; sacral
63012	lumbar laminectomy for spondylolisthesis with removal of abnormal facet or pars interarticularis)
63015	laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (e.g., spinal stenosis), more than 2 vertebral segments; cervical
63016	laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (e.g., spinal stenosis), more than 2 vertebral segments; thoracic
63017	more than two segments
63020	laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy and/or excision of herniated intervertebral disc, including open and endoscopically-assisted approaches; 1 interspace, cervical
63030	lumbar laminotomy including partial facetectomy, foraminotomy,and/or excision of herniated disc
63035	each additional interspace
63040	laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy and/or excision of herniated intervertebral disc, reexploration, single interspace; cervical
63042	re-exploration lumbar laminotomy, including partial facetectomy, foraminotomy, and/or excision of herniated disc
63043	laminonotomy with decompression of nerve root, each additional cervical interspace
63044	each additional interspace
63045	laminectomy, facetectomy and foraminotomy (unilateral or bilateral with decompression of spinal cord, cauda equina and/or nerve root[s], [e.g., spinal or lateral recess stenosis]), single vertebral segment; cervical
63046	laminectomy, facetectomy and foraminotomy (unilateral or bilateral with decompression of spinal cord, cauda equina and/or nerve root[s], [e.g., spinal or lateral recess stenosis]), single vertebral segment; thoracic
63047	lumbar laminectomy, facetectomy and foraminotomy, single level)
63048	each additional segment
63050	laminoplasty, cervical, with decompression of the spinal cord, 2 or more vertebral segments
63051	laminoplasty, cervical, with decompression of the spinal cord, 2 or more vertebral segments; with reconstruction of the posterior bony elements (including the application of bridging bone graft and non-segmental fixation devices (e.g., wire, suture, mini-plates), when performed)

63055	transpedicular approach with decompression of spinal cord, equina and/or nerve root(s) (e.g., herniated intervertebral disc), single segment; thoracic
63056	transpedicular approach with decompression of spinal cord, equina and/or nerve root(s) (e.g., herniated intervertebral disc), single segment; lumbar (including transfacet, or lateral extraforaminal approach) (e.g., far lateral herniated intervertebral disc)
63057	transpedicular approach with decompression of spinal cord, each additional segmen
63064	costovertebral approach with decompression of spinal cord or nerve root(s) (e.g., herniated intervertebral disc), thoracic; single segment
63066	costrovertebral approach with decompression of spinal cord or nerve roots, thoracic, each additional segment
63075	discectomy, anterior, with decompression of spinal cord and/or nerve root(s), including osteophytectomy; cervical, single interspace
63076	discectomy, anterior, with decompression of spinal cord and/or nerve root(s), including osteophytectomy; cervical, each additional interspac
63077	discectomy, anterior, with decompression of spinal cord and/or nerve root(s), including osteophytectomy; thoracic, single interspace
63078	discectomy, anterior, with decompression of spinal cord and/or nerve root(s), including osteophytectomy; thoracic, each additional interspace
63081	vertebral corpectomy (vertebral body resection), partial or complete, anterior approach with decompression of spinal cord and/or nerve root(s); cervical, single segment
63082	vertebral corpectomy (vertebral body resection), partial or complete, anterior approach with decompression of spinal cord and/or nerve root(s); cervical, each additional segment
63085	vertebral corpectomy (vertebral body resection), partial or complete, transthoracic approach with decompression of spinal cord and/or nerve root(s); thoracic, single segment
63086	vertebral corpectomy (vertebral body resection), partial or complete, transthoracic approach with decompression of spinal cord and/or nerve root(s); thoracic, each additional segment
63087	vertebral corpectomy (vertebral body resection), partial or complete, combined thoracolumbar approach with decompression of spinal cord, cauda equina or nerve root(s), lower thoracic or lumbar; single segment
63088	vertebral corpectomy (vertebral body resection), partial or complete, combined thoracolumbar approach with decompression of spinal cord, cauda equina or nerve root(s), lower thoracic or lumbar; each additional segment
63090	vertebral corpectomy (vertebral body resection), partial or complete, transperitoneal or retroperitoneal approach with decompression of spinal cord, cauda equina or nerve root(s), lower thoracic, lumbar, or sacral; single segment
63091	or retroperitoneal approach with decompression of spinal cord, cauda equina or nerve root(s), lower thoracic, lumbar, or sacral; each additional segment
63102	vertebral corpectomy (vertebral body resection), partial or complete, lateral extracavitary approach with decompression of spinal cord and/or nerve root(s) (e.g., for tumor or retropulsed bone fragments); lumbar, single segment
63103	vertebral corpectomy (vertebral body resection), partial or complete, lateral extracavitary approach with decompression of spinal cord and/or nerve root(s) (e.g., for tumor or retropulsed bone fragments); thoracic or lumbar, each additional segment
63170	laminectomy with myelotomy (e.g., bischof or drez type), cervical, thoracic, or thoracolumbar
63172	laminectomy with drainage of intramedullary cyst/syrinx; to subarachnoid space

63173	laminectomy with drainage of intramedullary cyst/syrinx; to peritoneal or pleural space
63180	laminectomy and section of dentate ligaments, with or without dural graft, cervical; 1 or 2 segments
63182	laminectomy and section of dentate ligaments, with or without dural graft, cervical; more than 2 segments
63185	laminectomy with rhizotomy; 1 or 2 segments
63190	laminectomy with rhizotomy; more than 2 segments
63191	laminectomy with section of spinal accessory nerve
63194	laminectomy with cordotomy, with section of 1 spinothalamic tract, 1 stage; cervical
63195	laminectomy with cordotomy, with section of 1 spinothalamic tract, 1 stage; thoracic
63196	laminectomy with cordotomy, with section of both spinothalamic tracts, 1 stage; cervical
63197	laminectomy with cordotomy, with section of both spinothalamic tracts, 1 stage; thoracic
63198	laminectomy with cordotomy with section of both spinothalamic tracts, 2 stages within 14 days; cervical
63199	laminectomy with cordotomy with section of both spinothalamic tracts, 2 stages within 14 days; thoracic
63200	laminectomy, with release of tethered spinal cord, lumbar
63250	laminectomy for excision or occlusion of arteriovenous malformation of spinal cord; cervical
63251	laminectomy for excision or occlusion of arteriovenous malformation of spinal cord; thoracic
63252	laminectomy for excision or occlusion of arteriovenous malformation of spinal cord; thoracolumbar
63265	laminectomy for excision or evacuation of intraspinal lesion other than neoplasm, extradural; cervical
63266	laminectomy for excision or evacuation of intraspinal lesion other than neoplasm, extradural; thoracic
63267	laminectomy for excision or evacuation of intraspinal lesion other than neoplasm, extradural; lumbar
63268	laminectomy for excision or evacuation of intraspinal lesion other than neoplasm, extradural; sacral
63270	laminectomy for excision of intraspinal lesion other than neoplasm, intradural; cervical
63271	laminectomy for excision of intraspinal lesion other than neoplasm, intradural; thoracic
63272	laminectomy for excision of intraspinal lesion other than neoplasm, intradural; lumbar
63273	laminectomy for excision of intraspinal lesion other than neoplasm, intradural; sacral
63275	laminectomy for biopsy/excision of intraspinal neoplasm; extradural, cervical
63276	laminectomy for biopsy/excision of intraspinal neoplasm; extradural, thoracic
63277	laminectomy for biopsy/excision of intraspinal neoplasm; extradural, lumbar
63278	laminectomy for biopsy/excision of intraspinal neoplasm; extradural, sacral
63280	laminectomy for biopsy/excision of intraspinal neoplasm; intradural, extramedullary, cervical
63281	laminectomy for biopsy/excision of intraspinal neoplasm; intradural, extramedullary, thoracic
63282	laminectomy for biopsy/excision of intraspinal neoplasm; intradural, extramedullary, lumbar
63283	laminectomy for biopsy/excision of intraspinal neoplasm; intradural, sacral
63285	laminectomy for biopsy/excision of intraspinal neoplasm; intradural, intramedullary, cervical
63286	laminectomy for biopsy/excision of intraspinal neoplasm; intradural, intramedullary, thoracic
63287	laminectomy for biopsy/excision of intraspinal neoplasm; intradural, intramedullary, thoracolumbar
63290	laminectomy for biopsy/excision of intraspinal neoplasm; combined extradura-intradural lesion, any level
63295	osteoplastic reconstruction of dorsal spinal elements, following primary intraspinal procedure (list separately in addition to code for primary procedure)
63301	vertebral corpectomy (vertebral body resection), partial or complete, for excision of intraspinal lesion, single segment; extradural, thoracic by transthoracic approach

63302	vertebral corpectomy (vertebral body resection), partial or complete, for excision of intraspinal lesion, single segment; extradural, thoracic by thoracolumbar approach
63303	vertebral corpectomy (vertebral body resection),partial or complete, for excision of intraspinal lesion, single segment; extradural, lumbar or sacral by transperitoneal or retroperitoneal approach
63304	vertebral corpectomy (vertebral body resection), partial or complete, for excision of intraspinal lesion, single segment; intradural, cervical
63305	vertebral corpectomy (vertebral body resection), partial or complete, for excision of intraspinal lesion, single segment; intradural, thoracic by transthoracic approach
63306	vertebral corpectomy (vertebral body resection), partial or complete, for excision of intraspinal lesion, single segment; intradural, thoracic by thoracolumbar approach
63307	vertebral corpectomy (vertebral body resection), partial or complete, for excision of intraspinal lesion, single segment; intradural, lumbar or sacral by transperitoneal or retroperitoneal approach
63308	vertebral corpectomy (vertebral body resection), partial or complete, for excision of intraspinal lesion, single segment; each additional segment
63650	dorsal column stimulator placements
63655	laminectomy for implantation of neurostimulator electrodes, plate/paddle, epidural
63660	revision or removal of spinal neurostimulator electrodes
63661	removal of spinal neurostimulator electrode percutaneous array(s), including fluoroscopy, when performed
63662	removal of spinal neurostimulator electrode plate/paddle(s) placed via laminotomy or laminectomy, including fluoroscopy, when performed
63663	revision including replacement, when performed, of spinal neurostimulator electrode percutaneous array(s), including fluoroscopy, when performed
63664	revision including replacement, when performed, of spinal neurostimulator electrode plate/paddle(s) placed via laminotomy or laminectomy, including fluoroscopy, when performed
63685	insertion or replacement of spinal neurostimulator pulse generator or receiver, direct or inductive coupling
63688	revision including replacement, when performed, of spinal neurostimulator electrode plate/paddle(s) placed via laminotomy or laminectomy, including fluoroscopy, when performed
64470	injection, anesthetic agent and/or steroid, paravertebral facet joint or facet joint nerve; cervical or thoracic, single level
64472	injection, anesthetic agent and/or steroid, paravertebral facet joint or facet joint nerve; cervical or thoracic, each additional level
64475	injection, anesthetic agent and/or steroid, paravertebral facet joint or facet joint nerve; lumbar or sacral, single level
64476	injection, anesthetic agent and/or steroid, paravertebral facet joint or facet joint nerve; lumbar or sacral, each additional level
64479	injection, anesthetic agent and/or steroid, transforaminal epidural; cervical or thoracic, single level
64480	injection, anesthetic agent and/or steroid, transforaminal epidural; cervical or thoracic, each additional level
64483	injection, anesthetic agent and/or steroid, transforaminal epidural; lumbar or sacral, single level
64484	injection, anesthetic agent and/or steroid, transforaminal epidural; lumbar or sacral, each additional level
64490	injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal)joint (or nerves innervating that joint) with image guidance (fluoroscopy or ct), cervical or thoracic; single level
64491	injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with image guidance (fluoroscopy or ct), cervical or thoracic; second level

64492	injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with image guidance (fluoroscopy or ct), cervical or thoracic; third and any additional level(s)
64493	paravertebral facet joint injection, lumbar or sacral, single level
64494	paravertebral facet joint injection, lumbar or sacral, second level
64495	paravertebral facet joint injection, lumbar or sacral, third and each additional level
64520	Injection, anesthetic agent; lumbar or thoracic (paravertebral sympathetic)
64553	percutaneous implantation of neurostimulator electrode array; cranial nerve
64622	destruction by neurolytic agent, paravertebral facet joint nerve; lumbar or sacral, single level
64623	lumbar or sacral, each additional level
64635	destruction by neurolytic agent, paravertebral facet joint nerve; lumbar or sacral, single level with image guidance
64636	lumbar or sacral, each additional level with image guidance
95991	refilling and maintenance of implantable pump or reservoir for drug delivery, spinal (intrathecal, epidural) or brain (intraventricular), includes electronic analysis of pump, when performed; requiring skill of a physician or other qualified health care professional
0092T	total disc arthroplasty (artificial disc), anterior approach, including discectomy with end plate preparation (includes osteophytectomy for nerve root or spinal cord decompression and microdissection), each additional interspace, cervical (list separately in addition to code for primary procedure)
0095T	removal of total disc arthroplasty (artificial disc), anterior approach, each additional interspace, cervical (list separately in addition to code for primary procedure)
0098T	revision including replacement of total disc arthroplasty (artificial disc), anterior approach, each additional interspace, cervical (list separately in addition to code for primary procedure)
0163T	total disc arthroplasty (artificial disc), anterior approach, including discectomy to prepare interspace (other than for decompression), each additional interspace, lumbar (list separately in addition to code for primary procedure)
0164T	removal of total disc arthroplasty, (artificial disc), anterior approach, each additional interspace, lumbar (list separately in addition to code for primary procedure)
0165T	revision including replacement of total disc arthroplasty (artificial disc), anterior approach, each additional interspace, lumbar (list separately in addition to code for primary procedure)
0171T	insertion of posterior spinous process distraction device (including necessary removal of bone or ligament for insertion and imaging guidance), lumbar; single level
0172T	insertion of posterior spinous process distraction device (including necessary removal of bone or ligament for insertion and imaging guidance), lumbar; each additional level (list separately in addition to code for primary procedure)
0215T	injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with ultrasound guidance, cervical or thoracic; third and any additional level(s)
0216T	injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with ultrasound guidance, lumbar or sacral; single level
0217T	injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with ultrasound guidance, lumbar or sacral; second level
0218T	injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with ultrasound guidance, lumbar or sacral; third and any additional level(s)
0230T	injection(s), anesthetic agent and/or steroid, transforaminal epidural, with ultrasound guidance, lumbar or sacral; single level

0231T	injection(s), anesthetic agent and/or steroid, transforaminal epidural, with ultrasound guidance, lumbar or sacral; each additional level
0282T	percutaneous or open implantation of neurostimulator electrode array(s), subcutaneous (peripheral subcutaneous field stimulation), including imaging guidance, when performed, cervical, thoracic or lumbar, for trial, including removal at the conclusion of trial period
0283T	percutaneous or open implantation of neurostimulator electrode array(s), subcutaneous (peripheral subcutaneous field stimulation), including imaging guidance, when performed, cervical, thoracic or lumbar, permanent, with implantation of a pulse generator
0284T	revision or removal of pulse generator or electrodes, including imaging guidance, when performed, including addition of new electrodes, when performed