Supplementary Online Content

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eTable 1. Included CPT Codes and Their Description

eTable 2. Consortium to Study Opioid Risks and Trends (CONSORT) Definitions for Opioid Availability

eFigure. Study Population Flow Diagram

This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. Included CPT Codes and Their Description

Code	Description	
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	Arthrodesis, lateral extracavitary technique, including minimal discectomy to prepare interspace (other than for	
	decompression); thoracic or lumbar, each additional vertebral segment (List separately in addition to code for primary	
	procedure)	
22551	Arthrodesis, anterior interbody, including disc space preparation, discectomy, osteophytectomy and decompression of	
	spinal cord and/or nerve roots; cervical below C2	
22552	Arthrodesis, anterior interbody, including disc space preparation, discectomy, osteophytectomy and decompression of	
	spinal cord and/or nerve roots; cervical below C2, each additional interspace (List separately in addition to code for	
	separate procedure)	
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	Arthrodesis, anterior interbody technique, including minimal discectomy to prepare interspace (other than for	
	decompression); lumbar	
22585	Arthrodesis, anterior interbody technique, including minimal discectomy to prepare interspace (other than for	
	decompression); each additional interspace (List separately in addition to code for primary procedure)	
22600	Arthrodesis, posterior or posterolateral technique, single level; cervical below C2 segment	
22610	Arthrodesis, posterior or posterolateral technique, single level; thoracic (with lateral transverse technique, when	
	performed)	
22612	Arthrodesis, posterior or posterolateral technique, single level; lumbar (with lateral transverse technique, when performed	
22614	Arthrodesis, posterior or posterolateral technique, single level; each additional vertebral segment (List separately in	
	addition to code for primary procedure)	
22630	Arthrodesis, posterior interbody technique, including laminectomy and/or discectomy to prepare interspace (other than for	
	decompression), single interspace; lumbar	
22632	Arthrodesis, posterior interbody technique, including laminectomy and/or discectomy to prepare interspace (other than for	
	decompression), single interspace; each additional interspace (List separately in addition to code for primary procedure)	

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 (List separately in addition to code for primary procedure)	
22840	Posterior non-segmental instrumentation (e.g., Harrington rod technique, pedicle fixation across 1 interspace, atlantoaxial	
	transarticular screw fixation, sublaminar wiring at C1, facet screw fixation) (List separately in addition to code for	
	primary procedure)	
22841	Internal spinal fixation by wiring of spinous processes (List separately in addition to code for primary procedure)	
22842	Posterior segmental instrumentation (e.g., pedicle fixation, dual rods with multiple hooks and sublaminar wires); 3 to 6	
	vertebral segments (List separately in addition to code for primary procedure)	
22843	Posterior segmental instrumentation (e.g., pedicle fixation, dual rods with multiple hooks and sublaminar wires); 7 to 12	
	vertebral segments (List separately in addition to code for primary procedure)	
22844	Posterior segmental instrumentation (e.g., pedicle fixation, dual rods with multiple hooks and sublaminar wires); 13 or	
	more vertebral segments (List separately in addition to code for primary procedure)	
22845	Anterior instrumentation; 2 to 3 vertebral segments (List separately in addition to code for primary procedure)	
22846	Anterior instrumentation; 4 to 7 vertebral segments (List separately in addition to code for primary procedure)	
22847	Anterior instrumentation; 8 or more vertebral segments (List separately in addition to code for primary procedure)	
22848	Pelvic fixation (attachment of caudal end of instrumentation to pelvic bony structures) other than sacrum (List separately	
	in addition to code for primary procedure)	
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	
22861	Revision including replacement of total disc arthroplasty (artificial disc), anterior approach, single interspace; cervical	
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	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; lumbar, except for spondylolisthesis	
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	Laminectomy with removal of abnormal facets and/or pars inter-articularis with decompression of cauda equina and nerve	
	roots for spondylolisthesis, lumbar (Gill type procedure)	

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	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; lumbar
63020	Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy
	and/or excision of herniated intervertebral disc; 1 interspace, cervical
63030	Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy
	and/or excision of herniated intervertebral disc; 1 interspace, lumbar
63035	Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy
	and/or excision of herniated intervertebral disc; each additional interspace, cervical or lumbar (List separately in addition
	to code for primary procedure)
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	Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy
	and/or excision of herniated intervertebral disc, reexploration, single interspace; lumbar
63043	Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy
	and/or excision of herniated intervertebral disc, reexploration, single interspace; each additional cervical interspace (List
	separately in addition to code for primary procedure)
63044	Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy
	and/or excision of herniated intervertebral disc, reexploration, single interspace; each additional lumbar interspace (List
	separately in addition to code for primary procedure)
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	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; lumbar
63048	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; each additional segment, cervical,
	thoracic, or lumbar (List separately in addition to code for primary procedure)
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, equina and/or nerve root(s) (e.g., herniated intervertebral
	disc), single segment; each additional segment, thoracic or lumbar (List separately in addition to code for primary
	procedure)
63064	Costovertebral approach with decompression of spinal cord or nerve root(s) (e.g., herniated intervertebral disc), thoracic;
	single segment
63066	Costovertebral approach with decompression of spinal cord or nerve root(s) (e.g., herniated intervertebral disc), thoracic;
	each additional segment (List separately in addition to code for primary procedure)
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 interspace (List separately in addition to code for primary procedure)
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 (List separately in addition to code for primary procedure)
63081	Vertebral corpectomy (vertebral body resection), partial or complete, anterior approach with decompression of spinal cord
62002	and/or nerve root(s); cervical, single segment
63082	Vertebral corpectomy (vertebral body resection), partial or complete, anterior approach with decompression of spinal cord
<200 <i>5</i>	and/or nerve root(s); cervical, each additional segment (List separately in addition to code for primary procedure)
63085	Vertebral corpectomy (vertebral body resection), partial or complete, transthoracic approach with decompression of spinal
(2007	cord and/or nerve root(s); thoracic, single segment
63086	Vertebral corpectomy (vertebral body resection), partial or complete, transthoracic approach with decompression of spinal
62007	cord and/or nerve root(s); thoracic, each additional segment (List separately in addition to code for primary procedure)
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 (List	
	separately in addition to code for primary procedure)	
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	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; each additional segment	
	(List separately in addition to code for primary procedure)	
63101	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, single 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 (List separately in addition to code for primary procedure)	
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 extradural-intradural lesion, any level	
63295	Osteoplastic reconstruction of dorsal spinal elements, following primary intraspinal procedure (List separately in addition to code for primary procedure)	
63300	Vertebral corpectomy (vertebral body resection), partial or complete, for excision of intraspinal lesion, single segment; extradural, cervical	
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 (List separately in addition to codes for single segment)	
22100	Partial excision of posterior vertebral component (e.g., spinous process, lamina or facet) for intrinsic bony lesion, single vertebral segment; cervical	
22101	Partial excision of posterior vertebral component (e.g., spinous process, lamina or facet) for intrinsic bony lesion, single vertebral segment; thoracic	
22102	Partial excision of posterior vertebral component (e.g., spinous process, lamina or facet) for intrinsic bony lesion, single vertebral segment; lumbar	
22103	Partial excision of posterior vertebral component (e.g., spinous process, lamina or facet) for intrinsic bony lesion, single vertebral segment; each additional segment (List separately in addition to code for primary procedure)	
22105	Partial resection of vertebral component for tumor (e.g., partial facetectomy, without primary grafting); cervical	
22106	Partial resection of vertebral component for tumor (e.g., partial facetectomy, without primary grafting); thoracic	
22107	Partial resection of vertebral component for tumor (e.g., partial facetectomy, without primary grafting); lumbar	

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 (List separately in addition to code for primary procedure)	
22140	Reconstruction of spine with bone graft (autograft, allograft) and/or methylmethacrylate following resection of single vertebral body; cervical	
22141	Reconstruction of spine with bone graft (autograft, allograft) and/or methylmethacrylate following resection of single vertebral body; thoracic	
22142	Reconstruction of spine with bone graft (autograft, allograft) and/or methylmethacrylate following resection of single vertebral body; lumbar	
22145	Reconstruction of spine following vertebral body resection, each additional vertebral body	
22206	Osteotomy of spine, posterior or posterolateral approach, 3 columns, 1 vertebral segment (e.g., pedicle/vertebral body subtraction); thoracic	
22207	Osteotomy of spine, posterior or posterolateral approach, 3 columns, 1 vertebral segment (e.g., pedicle/vertebral body subtraction); lumbar	
22208	Osteotomy of spine, posterior or posterolateral approach, 3 columns, 1 vertebral segment (e.g., pedicle/vertebral body subtraction); each additional vertebral segment (List separately in addition to code for primary procedure)	
22210	Osteotomy of spine, posterior or posterolateral approach, 1 vertebral segment; cervical	
22212	Osteotomy of spine, posterior or posterolateral approach, 1 vertebral segment; thoracic	
22214	Osteotomy of spine, posterior or posterolateral approach, 1 vertebral segment; lumbar	
22216	Osteotomy of spine, posterior or posterolateral approach, 1 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	
	(List separately in addition to code for primary procedure)	
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, 1 fractured vertebra or dislocated segment; cervical	
22327	Open treatment and/or reduction of vertebral fracture(s) and/or dislocation(s), posterior approach, 1 fractured vertebra or dislocated segment; thoracic	
22328	Open treatment and/or reduction of vertebral fracture(s) and/or dislocation(s), posterior approach, 1 fractured vertebra or dislocated segment; each additional fractured vertebra or dislocated segment (List separately in addition to code for primary procedure)	
22548	Arthrodesis, anterior transoral or extraoral technique, clivus-C1-C2 (atlas-axis), with or without excision of odontoid process	
22586	Arthrodesis, pre-sacral interbody technique, including disc space preparation, discectomy, with posterior instrumentation, with image guidance, includes bone graft when performed, L5-S1 interspace	
22590	Arthrodesis, posterior technique, craniocervical (occiput-C2)	
22595	Arthrodesis, posterior technique, atlas-axis (C1-C2)	
22625	Arthrodesis, lateral transverse process technique, with local bone or bone allograft and/or internal wire fixation, lumbar	
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	
22849	Reinsertion of spinal fixation device	
22850	Removal of posterior nonsegmental instrumentation (e.g., Harrington rod)	
22851	Application of intervertebral biomechanical device(s) (e.g., synthetic cage(s), methylmethacrylate) to vertebral defect or	
	interspace (List separately in addition to code for primary procedure)	
22852	Removal of posterior segmental instrumentation	

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22853	Insertion of interbody biomechanical device(s) (e.g., synthetic cage, mesh) with integral anterior instrumentation for	
	device anchoring (e.g., screws, flanges), when performed, to intervertebral disc space in conjunction with interbody	
	arthrodesis, each interspace (List separately in addition to code for primary procedure)	
22854	Insertion of intervertebral biomechanical device(s) (e.g., synthetic cage, mesh) with integral anterior instrumentation for	
	device anchoring (e.g., screws, flanges), when performed, to vertebral corpectomy(ies) (vertebral body resection, partial	
	or complete) defect, in conjunction with interbody arthrodesis, each contiguous defect (List separately in addition to code	
	for primary procedure)	
22855	Removal of anterior instrumentation	
22857	Total disc arthroplasty (artificial disc), anterior approach, including discectomy to prepare interspace (other than for	
	decompression), single interspace, lumbar	
22858	Total disc arthroplasty (artificial disc), anterior approach, including discectomy with end plate preparation (includes	
	osteophytectomy for nerve root or spinal cord decompression and microdissection); second level, cervical (List separately	
	in addition to code for primary procedure)	
22859	Insertion of intervertebral biomechanical device(s) (e.g., synthetic cage, mesh, methylmethacrylate) to intervertebral disc	
	space or vertebral body defect without interbody arthrodesis, each contiguous defect (List separately in addition to code	
	for primary procedure)	
22862	Revision including replacement of total disc arthroplasty (artificial disc), anterior approach, single interspace; lumbar	
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	
22867	Insertion of interlaminar/interspinous process stabilization/distraction device, without fusion, including image guidance	
	when performed, with open decompression, lumbar; single level	
22868	Insertion of interlaminar/interspinous process stabilization/distraction device, without fusion, including image guidance	
	when performed, with open decompression, lumbar; second level (List separately in addition to code for primary	
	procedure)	
22869	Insertion of interlaminar/interspinous process stabilization/distraction device, without open decompression or fusion,	
	including image guidance when performed, lumbar; single level	
22870	Insertion of interlaminar/interspinous process stabilization/distraction device, without open decompression or fusion,	
	including image guidance when performed, lumbar; second level (List separately in addition to code for primary	
	procedure)	
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	

eTable 2. Consortium to Study Opioid Risks and Trends (CONSORT) Definitions for Opioid Availability

CONSORT Classification	Definition
None	No opioid prescription availability in the 180-day period of interest (i.e. 180 days prior to surgery)
Short-Term	Opioid prescription availability for less than 90 days during the 180-day period of interest
Episodic	Opioid prescription availability for ≥90 but <120 days with <10 opioid prescriptions during the 180-day period of interest
Chronic	Opioid prescription availability >90 days with >10 prescriptions or opioid availability > 120 days during the 180-day period of interest

