

EPIDURAL STEROID AND FACET INJECTIONS FOR SPINAL PAIN

Policy Number: PAIN 019.23 T2

Effective Date: November 1, 2018

[Instructions for Use](#) ⓘ

Table of Contents	Page
CONDITIONS OF COVERAGE	1
COVERAGE RATIONALE	1
DEFINITIONS	2
APPLICABLE CODES	2
DESCRIPTION OF SERVICES	15
CLINICAL EVIDENCE	15
U.S. FOOD AND DRUG ADMINISTRATION	20
REFERENCES	20
POLICY HISTORY/REVISION INFORMATION	22
INSTRUCTIONS FOR USE	22

Related Policies

- [Ablative Treatment for Spinal Pain](#)
- [Occipital Neuralgia and Headache Treatment](#)

CONDITIONS OF COVERAGE

Applicable Lines of Business/Products	This policy applies to Oxford Commercial plan membership.
Benefit Type	General benefits package
Referral Required (Does not apply to non-gatekeeper products)	Yes – Office No - Outpatient
Authorization Required (Precertification always required for inpatient admission)	No - Office ¹ Yes - Outpatient
Precertification with Medical Director Review Required	No ¹
Applicable Site(s) of Service (If site of service is not listed, Medical Director review is required)	Office, Outpatient
Special Considerations	¹ Precertification with review by a Medical Director is required for CPT codes 0213T, 0214T, 0215T, 0216T, 0217T, 0218T, 0230T, and 0231T.

COVERAGE RATIONALE

Note: Epidural steroid injections in this policy apply to the lumbar spine only. This section does not address cervical or thoracic injections.

The facet joint injections section of this policy addresses multiple sites, and is not limited to the lumbar spine.

Ultrasound Guidance

The use of ultrasound guidance for epidural steroid injection(s) and facet joint injection(s) is unproven and not medically necessary.

There is insufficient clinical evidence regarding its safety and/or efficacy in published peer-reviewed medical literature.

Epidural Steroid Injections

Epidural steroid injection is proven and medically necessary for treating acute and sub-acute sciatica or radicular pain of the low back caused by spinal stenosis, disc herniation or degenerative changes in the vertebrae.

Epidural steroid injections have a clinically established role in the short-term management of low back pain when the following two criteria are met:

- The pain is associated with symptoms of nerve root irritation and/or low back pain due to disc extrusions and/or contained herniations; **and**
- The pain is unresponsive to conservative treatment, including but not limited to pharmacotherapy, exercise or physical therapy.

Epidural steroid injection is unproven and not medically necessary for ALL other indications of the lumbar spine.

There is a lack of evidence from randomized controlled trials indicating that epidural steroid injections effectively treat patients with lumbar pain not associated with sciatica or radicular pain.

Note: This policy does not apply to obstetrical epidural anesthesia utilized during labor and delivery.

Facet Joint Injections

Diagnostic facet joint injection and/or facet nerve block (e.g., medial branch block) is proven and medically necessary when used to localize the source of pain to the facet joint in persons with spinal pain.

Therapeutic facet joint injection is unproven and not medically necessary for treating chronic spinal pain.

Clinical evidence about the very existence of facet joint syndrome is conflicting, and evidence from studies is inadequate regarding the superiority of periodic facet joint injections compared to placebo in relieving chronic spinal pain (pain lasting more than 3 months).

For additional information on facet joint injections as a diagnostic procedure prior to radiofrequency ablation see [Clinical Evidence](#).

DEFINITIONS

Acute Low Back Pain: Low back pain present for up to six weeks. The early acute phase is defined as less than two weeks and the late acute phase is defined as two to six weeks, secondary to the potential for delayed-recovery or risk phases for the development of chronic low back pain. Low back pain can occur on a recurring basis. If there has been complete recovery between episodes, it is considered acute recurrent.

Subacute Low Back Pain: Low back pain with duration of greater than six weeks after injury but no longer than 12 weeks after onset of symptoms. (Goertz et al. 2012)

APPLICABLE CODES

The following list(s) of procedure and/or diagnosis codes is provided for reference purposes only and may not be all inclusive. Listing of a code in this policy does not imply that the service described by the code is a covered or non-covered health service. Benefit coverage for health services is determined by the member specific benefit plan document and applicable laws that may require coverage for a specific service. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment. Other Policies may apply.

CPT Code	Description
0213T	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with ultrasound guidance, cervical or thoracic; single level
0214T	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with ultrasound guidance, cervical or thoracic; second 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) (List separately in addition to code for primary procedure)
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 (List separately in addition to code for primary procedure)

CPT Code	Description
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) (List separately in addition to code for primary procedure)
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 (List separately in addition to code for primary procedure)
Epidural	
62322	Injection(s), of diagnostic or therapeutic substance(s) (e.g., 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
62323	Injection(s), of diagnostic or therapeutic substance(s) (e.g., 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 (i.e., fluoroscopy or CT)
64483	Injection, anesthetic agent and/or steroid, transforaminal epidural, with imaging guidance (fluoroscopy or CT); lumbar or sacral, single level
64484	Injection, anesthetic agent and/or steroid, transforaminal epidural, with imaging guidance (fluoroscopy or CT); lumbar or sacral, each additional level (List separately in addition to code for primary procedure)
Facet	
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 (List separately in addition to code for primary procedure)
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) (List separately in addition to code for primary procedure)
64493	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with image guidance (fluoroscopy or CT), lumbar or sacral; single level
64494	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with image guidance (fluoroscopy or CT), lumbar or sacral; second level (List separately in addition to code for primary procedure)
64495	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with image guidance (fluoroscopy or CT), lumbar or sacral; third and any additional level(s) (List separately in addition to code for primary procedure)

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ICD-10 Diagnosis Code	Description
Epidural	
E08.41	Diabetes mellitus due to underlying condition with diabetic mononeuropathy
E09.41	Drug or chemical induced diabetes mellitus with neurological complications with diabetic mononeuropathy
E10.41	Type 1 diabetes mellitus with diabetic mononeuropathy
E11.41	Type 2 diabetes mellitus with diabetic mononeuropathy
E13.41	Other specified diabetes mellitus with diabetic mononeuropathy

ICD-10 Diagnosis Code	Description
Epidural	
G54.1	Lumbosacral plexus disorders
G54.4	Lumbosacral root disorders, not elsewhere classified
G57.00	Lesion of sciatic nerve, unspecified lower limb
G57.01	Lesion of sciatic nerve, right lower limb
G57.02	Lesion of sciatic nerve, left lower limb
G57.70	Causalgia of unspecified lower limb
G57.71	Causalgia of right lower limb
G57.72	Causalgia of left lower limb
G57.80	Other specified mononeuropathies of unspecified lower limb
G57.81	Other specified mononeuropathies of right lower limb
G57.82	Other specified mononeuropathies of left lower limb
G57.90	Unspecified mononeuropathy of unspecified lower limb
G57.91	Unspecified mononeuropathy of right lower limb
G57.92	Unspecified mononeuropathy of left lower limb
G58.8	Other specified mononeuropathies
G58.9	Mononeuropathy, unspecified
G59	Mononeuropathy in diseases classified elsewhere
G90.50	Complex regional pain syndrome I, unspecified
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
G90.59	Complex regional pain syndrome I of other specified site
M43.00	Spondylolysis, site unspecified
M43.01	Spondylolysis, occipito-atlanto-axial region
M43.02	Spondylolysis, cervical region
M43.03	Spondylolysis, cervicothoracic region
M43.04	Spondylolysis, thoracic region
M43.05	Spondylolysis, thoracolumbar region
M43.06	Spondylolysis, lumbar region
M43.07	Spondylolysis, lumbosacral region
M43.08	Spondylolysis, sacral and sacrococcygeal region
M43.09	Spondylolysis, multiple sites in spine
M43.10	Spondylolisthesis, site unspecified
M43.11	Spondylolisthesis, occipito-atlanto-axial region
M43.12	Spondylolisthesis, cervical region
M43.13	Spondylolisthesis, cervicothoracic region
M43.14	Spondylolisthesis, thoracic region
M43.15	Spondylolisthesis, thoracolumbar region
M43.16	Spondylolisthesis, lumbar region
M43.17	Spondylolisthesis, lumbosacral region
M43.18	Spondylolisthesis, sacral and sacrococcygeal region
M43.19	Spondylolisthesis, multiple sites in spine
M43.27	Fusion of spine, lumbosacral region
M43.28	Fusion of spine, sacral and sacrococcygeal region
M47.16	Other spondylosis with myelopathy, lumbar region

ICD-10 Diagnosis Code	Description
Epidural	
M47.26	Other spondylosis with radiculopathy, lumbar region
M47.27	Other spondylosis with radiculopathy, lumbosacral region
M47.28	Other spondylosis with radiculopathy, sacral and sacrococcygeal region
M47.816	Spondylosis without myelopathy or radiculopathy, lumbar region
M47.817	Spondylosis without myelopathy or radiculopathy, lumbosacral region
M47.818	Spondylosis without myelopathy or radiculopathy, sacral and sacrococcygeal region
M47.896	Other spondylosis, lumbar region
M47.897	Other spondylosis, lumbosacral region
M47.898	Other spondylosis, sacral and sacrococcygeal region
M48.00	Spinal stenosis, site unspecified
M48.061	Spinal stenosis, lumbar region without neurogenic claudication
M48.062	Spinal stenosis, lumbar region with neurogenic claudication
M48.07	Spinal stenosis, lumbosacral region
M48.08	Spinal stenosis, sacral and sacrococcygeal region
M51.06	Intervertebral disc disorders with myelopathy, lumbar region
M51.14	Intervertebral disc disorders with radiculopathy, thoracic region
M51.15	Intervertebral disc disorders with radiculopathy, thoracolumbar region
M51.16	Intervertebral disc disorders with radiculopathy, lumbar region
M51.17	Intervertebral disc disorders with radiculopathy, lumbosacral region
M51.26	Other intervertebral disc displacement, lumbar region
M51.27	Other intervertebral disc displacement, lumbosacral region
M51.34	Other intervertebral disc degeneration, thoracic region
M51.35	Other intervertebral disc degeneration, thoracolumbar region
M51.36	Other intervertebral disc degeneration, lumbar region
M51.37	Other intervertebral disc degeneration, lumbosacral region
M51.46	Schmorl's nodes, lumbar region
M51.47	Schmorl's nodes, lumbosacral region
M51.9	Unspecified thoracic, thoracolumbar and lumbosacral intervertebral disc disorder
M53.2X7	Spinal instabilities, lumbosacral region
M53.2X8	Spinal instabilities, sacral and sacrococcygeal region
M53.3	Sacrococcygeal disorders, not elsewhere classified
M53.86	Other specified dorsopathies, lumbar region
M53.87	Other specified dorsopathies, lumbosacral region
M53.88	Other specified dorsopathies, sacral and sacrococcygeal region
M54.14	Radiculopathy, thoracic region
M54.15	Radiculopathy, thoracolumbar region
M54.16	Radiculopathy, lumbar region
M54.17	Radiculopathy, lumbosacral region
M54.30	Sciatica, unspecified side
M54.31	Sciatica, right side
M54.32	Sciatica, left side
M54.40	Lumbago with sciatica, unspecified side
M54.41	Lumbago with sciatica, right side
M54.42	Lumbago with sciatica, left side
M96.1	Postlaminectomy syndrome, not elsewhere classified
M99.23	Subluxation stenosis of neural canal of lumbar region

ICD-10 Diagnosis Code	Description
Epidural	
M99.24	Subluxation stenosis of neural canal of sacral region
M99.25	Subluxation stenosis of neural canal of pelvic region
M99.26	Subluxation stenosis of neural canal of lower extremity
M99.27	Subluxation stenosis of neural canal of upper extremity
M99.28	Subluxation stenosis of neural canal of rib cage
M99.29	Subluxation stenosis of neural canal of abdomen and other regions
M99.33	Osseous stenosis of neural canal of lumbar region
M99.34	Osseous stenosis of neural canal of sacral region
M99.35	Osseous stenosis of neural canal of pelvic region
M99.36	Osseous stenosis of neural canal of lower extremity
M99.37	Osseous stenosis of neural canal of upper extremity
M99.38	Osseous stenosis of neural canal of rib cage
M99.39	Osseous stenosis of neural canal of abdomen and other regions
M99.43	Connective tissue stenosis of neural canal of lumbar region
M99.44	Connective tissue stenosis of neural canal of sacral region
M99.45	Connective tissue stenosis of neural canal of pelvic region
M99.46	Connective tissue stenosis of neural canal of lower extremity
M99.47	Connective tissue stenosis of neural canal of upper extremity
M99.48	Connective tissue stenosis of neural canal of rib cage
M99.49	Connective tissue stenosis of neural canal of abdomen and other regions
M99.53	Intervertebral disc stenosis of neural canal of lumbar region
M99.54	Intervertebral disc stenosis of neural canal of sacral region
M99.55	Intervertebral disc stenosis of neural canal of pelvic region
M99.56	Intervertebral disc stenosis of neural canal of lower extremity
M99.57	Intervertebral disc stenosis of neural canal of upper extremity
M99.58	Intervertebral disc stenosis of neural canal of rib cage
M99.59	Intervertebral disc stenosis of neural canal of abdomen and other regions
M99.63	Osseous and subluxation stenosis of intervertebral foramina of lumbar region
M99.64	Osseous and subluxation stenosis of intervertebral foramina of sacral region
M99.65	Osseous and subluxation stenosis of intervertebral foramina of pelvic region
M99.66	Osseous and subluxation stenosis of intervertebral foramina of lower extremity
M99.67	Osseous and subluxation stenosis of intervertebral foramina of upper extremity
M99.68	Osseous and subluxation stenosis of intervertebral foramina of rib cage
M99.69	Osseous and subluxation stenosis of intervertebral foramina of abdomen and other regions
M99.73	Connective tissue and disc stenosis of intervertebral foramina of lumbar region
M99.74	Connective tissue and disc stenosis of intervertebral foramina of sacral region
M99.75	Connective tissue and disc stenosis of intervertebral foramina of pelvic region
M99.76	Connective tissue and disc stenosis of intervertebral foramina of lower extremity
M99.77	Connective tissue and disc stenosis of intervertebral foramina of upper extremity
M99.78	Connective tissue and disc stenosis of intervertebral foramina of rib cage
M99.79	Connective tissue and disc stenosis of intervertebral foramina of abdomen and other regions
S24.2XXA	Injury of nerve root of thoracic spine, initial encounter
S32.000A	Wedge compression fracture of unspecified lumbar vertebra, initial encounter for closed fracture

ICD-10 Diagnosis Code	Description
Epidural	
S32.001A	Stable burst fracture of unspecified lumbar vertebra, initial encounter for closed fracture
S32.002A	Unstable burst fracture of unspecified lumbar vertebra, initial encounter for closed fracture
S32.008A	Other fracture of unspecified lumbar vertebra, initial encounter for closed fracture
S32.009A	Unspecified fracture of unspecified lumbar vertebra, initial encounter for closed fracture
S32.010A	Wedge compression fracture of first lumbar vertebra, initial encounter for closed fracture
S32.011A	Stable burst fracture of first lumbar vertebra, initial encounter for closed fracture
S32.012A	Unstable burst fracture of first lumbar vertebra, initial encounter for closed fracture
S32.018A	Other fracture of first lumbar vertebra, initial encounter for closed fracture
S32.019A	Unspecified fracture of first lumbar vertebra, initial encounter for closed fracture
S32.020A	Wedge compression fracture of second lumbar vertebra, initial encounter for closed fracture
S32.021A	Stable burst fracture of second lumbar vertebra, initial encounter for closed fracture
S32.022A	Unstable burst fracture of second lumbar vertebra, initial encounter for closed fracture
S32.028A	Other fracture of second lumbar vertebra, initial encounter for closed fracture
S32.029A	Unspecified fracture of second lumbar vertebra, initial encounter for closed fracture
S32.030A	Wedge compression fracture of third lumbar vertebra, initial encounter for closed fracture
S32.031A	Stable burst fracture of third lumbar vertebra, initial encounter for closed fracture
S32.032A	Unstable burst fracture of third lumbar vertebra, initial encounter for closed fracture
S32.038A	Other fracture of third lumbar vertebra, initial encounter for closed fracture
S32.039A	Unspecified fracture of third lumbar vertebra, initial encounter for closed fracture
S32.040A	Wedge compression fracture of fourth lumbar vertebra, initial encounter for closed fracture
S32.041A	Stable burst fracture of fourth lumbar vertebra, initial encounter for closed fracture
S32.042A	Unstable burst fracture of fourth lumbar vertebra, initial encounter for closed fracture
S32.048A	Other fracture of fourth lumbar vertebra, initial encounter for closed fracture
S32.049A	Unspecified fracture of fourth lumbar vertebra, initial encounter for closed fracture
S32.050A	Wedge compression fracture of fifth lumbar vertebra, initial encounter for closed fracture
S32.051A	Stable burst fracture of fifth lumbar vertebra, initial encounter for closed fracture
S32.052A	Unstable burst fracture of fifth lumbar vertebra, initial encounter for closed fracture
S32.058A	Other fracture of fifth lumbar vertebra, initial encounter for closed fracture
S32.059A	Unspecified fracture of fifth lumbar vertebra, initial encounter for closed fracture
S34.21XA	Injury of nerve root of lumbar spine, initial encounter
S34.22XA	Injury of nerve root of sacral spine, initial encounter
S34.4XXA	Injury of lumbosacral plexus, initial encounter
S74.00XA	Injury of sciatic nerve at hip and thigh level, unspecified leg, initial encounter
S74.01XA	Injury of sciatic nerve at hip and thigh level, right leg, initial encounter
S74.02XA	Injury of sciatic nerve at hip and thigh level, left leg, initial encounter
Facet	
M12.88	Other specific arthropathies, not elsewhere classified, other specified site
M41.112	Juvenile idiopathic scoliosis, cervical region
M41.113	Juvenile idiopathic scoliosis, cervicothoracic region

ICD-10 Diagnosis Code	Description
Facet	
M41.114	Juvenile idiopathic scoliosis, thoracic region
M41.115	Juvenile idiopathic scoliosis, thoracolumbar region
M41.116	Juvenile idiopathic scoliosis, lumbar region
M41.117	Juvenile idiopathic scoliosis, lumbosacral region
M41.119	Juvenile idiopathic scoliosis, site unspecified
M41.122	Adolescent idiopathic scoliosis, cervical region
M41.123	Adolescent idiopathic scoliosis, cervicothoracic region
M41.124	Adolescent idiopathic scoliosis, thoracic region
M41.125	Adolescent idiopathic scoliosis, thoracolumbar region
M41.126	Adolescent idiopathic scoliosis, lumbar region
M41.127	Adolescent idiopathic scoliosis, lumbosacral region
M41.129	Adolescent idiopathic scoliosis, site unspecified
M41.20	Other idiopathic scoliosis, site unspecified
M41.22	Other idiopathic scoliosis, cervical region
M41.23	Other idiopathic scoliosis, cervicothoracic region
M41.24	Other idiopathic scoliosis, thoracic region
M41.25	Other idiopathic scoliosis, thoracolumbar region
M41.26	Other idiopathic scoliosis, lumbar region
M41.27	Other idiopathic scoliosis, lumbosacral region
M43.00	Spondylolysis, site unspecified
M43.01	Spondylolysis, occipito-atlanto-axial region
M43.02	Spondylolysis, cervical region
M43.03	Spondylolysis, cervicothoracic region
M43.04	Spondylolysis, thoracic region
M43.05	Spondylolysis, thoracolumbar region
M43.06	Spondylolysis, lumbar region
M43.07	Spondylolysis, lumbosacral region
M43.08	Spondylolysis, sacral and sacrococcygeal region
M43.09	Spondylolysis, multiple sites in spine
M43.10	Spondylolisthesis, site unspecified
M43.11	Spondylolisthesis, occipito-atlanto-axial region
M43.12	Spondylolisthesis, cervical region
M43.13	Spondylolisthesis, cervicothoracic region
M43.14	Spondylolisthesis, thoracic region
M43.15	Spondylolisthesis, thoracolumbar region
M43.16	Spondylolisthesis, lumbar region
M43.17	Spondylolisthesis, lumbosacral region
M43.18	Spondylolisthesis, sacral and sacrococcygeal region
M43.19	Spondylolisthesis, multiple sites in spine
M46.90	Unspecified inflammatory spondylopathy, site unspecified
M46.91	Unspecified inflammatory spondylopathy, occipito-atlanto-axial region
M46.92	Unspecified inflammatory spondylopathy, cervical region
M46.93	Unspecified inflammatory spondylopathy, cervicothoracic region
M46.94	Unspecified inflammatory spondylopathy, thoracic region
M46.95	Unspecified inflammatory spondylopathy, thoracolumbar region
M46.96	Unspecified inflammatory spondylopathy, lumbar region

ICD-10 Diagnosis Code	Description
Facet	
M46.97	Unspecified inflammatory spondylopathy, lumbosacral region
M46.98	Unspecified inflammatory spondylopathy, sacral and sacrococcygeal region
M46.99	Unspecified inflammatory spondylopathy, multiple sites in spine
M47.011	Anterior spinal artery compression syndromes, occipito-atlanto-axial region
M47.012	Anterior spinal artery compression syndromes, cervical region
M47.013	Anterior spinal artery compression syndromes, cervicothoracic region
M47.014	Anterior spinal artery compression syndromes, thoracic region
M47.015	Anterior spinal artery compression syndromes, thoracolumbar region
M47.016	Anterior spinal artery compression syndromes, lumbar region
M47.019	Anterior spinal artery compression syndromes, site unspecified
M47.021	Vertebral artery compression syndromes, occipito-atlanto-axial region
M47.022	Vertebral artery compression syndromes, cervical region
M47.029	Vertebral artery compression syndromes, site unspecified
M47.11	Other spondylosis with myelopathy, occipito-atlanto-axial region
M47.12	Other spondylosis with myelopathy, cervical region
M47.13	Other spondylosis with myelopathy, cervicothoracic region
M47.14	Other spondylosis with myelopathy, thoracic region
M47.15	Other spondylosis with myelopathy, thoracolumbar region
M47.16	Other spondylosis with myelopathy, lumbar region
M47.20	Other spondylosis with radiculopathy, site unspecified
M47.21	Other spondylosis with radiculopathy, occipito-atlanto-axial region
M47.22	Other spondylosis with radiculopathy, cervical region
M47.23	Other spondylosis with radiculopathy, cervicothoracic region
M47.24	Other spondylosis with radiculopathy, thoracic region
M47.25	Other spondylosis with radiculopathy, thoracolumbar region
M47.26	Other spondylosis with radiculopathy, lumbar region
M47.27	Other spondylosis with radiculopathy, lumbosacral region
M47.28	Other spondylosis with radiculopathy, sacral and sacrococcygeal region
M47.811	Spondylosis without myelopathy or radiculopathy, occipito-atlanto-axial region
M47.812	Spondylosis without myelopathy or radiculopathy, cervical region
M47.813	Spondylosis without myelopathy or radiculopathy, cervicothoracic region
M47.814	Spondylosis without myelopathy or radiculopathy, thoracic region
M47.815	Spondylosis without myelopathy or radiculopathy, thoracolumbar region
M47.816	Spondylosis without myelopathy or radiculopathy, lumbar region
M47.817	Spondylosis without myelopathy or radiculopathy, lumbosacral region
M47.818	Spondylosis without myelopathy or radiculopathy, sacral and sacrococcygeal region
M47.819	Spondylosis without myelopathy or radiculopathy, site unspecified
M47.891	Other spondylosis, occipito-atlanto-axial region
M47.892	Other spondylosis, cervical region
M47.893	Other spondylosis, cervicothoracic region
M47.894	Other spondylosis, thoracic region
M47.895	Other spondylosis, thoracolumbar region
M47.896	Other spondylosis, lumbar region
M47.897	Other spondylosis, lumbosacral region
M47.898	Other spondylosis, sacral and sacrococcygeal region
M47.899	Other spondylosis, site unspecified

ICD-10 Diagnosis Code	Description
Facet	
M47.9	Spondylosis, unspecified
M48.50XA	Collapsed vertebra, not elsewhere classified, site unspecified, initial encounter for fracture
M48.51XA	Collapsed vertebra, not elsewhere classified, occipito-atlanto-axial region, initial encounter for fracture
M48.52XA	Collapsed vertebra, not elsewhere classified, cervical region, initial encounter for fracture
M48.53XA	Collapsed vertebra, not elsewhere classified, cervicothoracic region, initial encounter for fracture
M48.54XA	Collapsed vertebra, not elsewhere classified, thoracic region, initial encounter for fracture
M48.55XA	Collapsed vertebra, not elsewhere classified, thoracolumbar region, initial encounter for fracture
M48.56XA	Collapsed vertebra, not elsewhere classified, lumbar region, initial encounter for fracture
M48.57XA	Collapsed vertebra, not elsewhere classified, lumbosacral region, initial encounter for fracture
M48.58XA	Collapsed vertebra, not elsewhere classified, sacral and sacrococcygeal region, initial encounter for fracture
M51.26	Other intervertebral disc displacement, lumbar region
M51.27	Other intervertebral disc displacement, 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
M84.48XA	Pathological fracture, other site, initial encounter for fracture
M84.58XA	Pathological fracture in neoplastic disease, other specified site, initial encounter for fracture
M84.68XA	Pathological fracture in other disease, other site, initial encounter for fracture
M96.1	Postlaminectomy syndrome, not elsewhere classified
S12.000A	Unspecified displaced fracture of first cervical vertebra, initial encounter for closed fracture
S12.001A	Unspecified nondisplaced fracture of first cervical vertebra, initial encounter for closed fracture
S12.01XA	Stable burst fracture of first cervical vertebra, initial encounter for closed fracture
S12.02XA	Unstable burst fracture of first cervical vertebra, initial encounter for closed fracture
S12.030A	Displaced posterior arch fracture of first cervical vertebra, initial encounter for closed fracture
S12.031A	Nondisplaced posterior arch fracture of first cervical vertebra, initial encounter for closed fracture
S12.040A	Displaced lateral mass fracture of first cervical vertebra, initial encounter for closed fracture
S12.041A	Nondisplaced lateral mass fracture of first cervical vertebra, initial encounter for closed fracture
S12.090A	Other displaced fracture of first cervical vertebra, initial encounter for closed fracture
S12.091A	Other nondisplaced fracture of first cervical vertebra, initial encounter for closed fracture
S12.100A	Unspecified displaced fracture of second cervical vertebra, initial encounter for closed fracture
S12.101A	Unspecified nondisplaced fracture of second cervical vertebra, initial encounter for closed fracture

ICD-10 Diagnosis Code	Description
Facet	
S12.110A	Anterior displaced Type II dens fracture, initial encounter for closed fracture
S12.111A	Posterior displaced Type II dens fracture, initial encounter for closed fracture
S12.112A	Nondisplaced Type II dens fracture, initial encounter for closed fracture
S12.120A	Other displaced dens fracture, initial encounter for closed fracture
S12.121A	Other nondisplaced dens fracture, initial encounter for closed fracture
S12.130A	Unspecified traumatic displaced spondylolisthesis of second cervical vertebra, initial encounter for closed fracture
S12.131A	Unspecified traumatic nondisplaced spondylolisthesis of second cervical vertebra, initial encounter for closed fracture
S12.14XA	Type III traumatic spondylolisthesis of second cervical vertebra, initial encounter for closed fracture
S12.150A	Other traumatic displaced spondylolisthesis of second cervical vertebra, initial encounter for closed fracture
S12.151A	Other traumatic nondisplaced spondylolisthesis of second cervical vertebra, initial encounter for closed fracture
S12.190A	Other displaced fracture of second cervical vertebra, initial encounter for closed fracture
S12.191A	Other nondisplaced fracture of second cervical vertebra, initial encounter for closed fracture
S12.200A	Unspecified displaced fracture of third cervical vertebra, initial encounter for closed fracture
S12.201A	Unspecified nondisplaced fracture of third cervical vertebra, initial encounter for closed fracture
S12.230A	Unspecified traumatic displaced spondylolisthesis of third cervical vertebra, initial encounter for closed fracture
S12.231A	Unspecified traumatic nondisplaced spondylolisthesis of third cervical vertebra, initial encounter for closed fracture
S12.24XA	Type III traumatic spondylolisthesis of third cervical vertebra, initial encounter for closed fracture
S12.250A	Other traumatic displaced spondylolisthesis of third cervical vertebra, initial encounter for closed fracture
S12.251A	Other traumatic nondisplaced spondylolisthesis of third cervical vertebra, initial encounter for closed fracture
S12.290A	Other displaced fracture of third cervical vertebra, initial encounter for closed fracture
S12.291A	Other nondisplaced fracture of third cervical vertebra, initial encounter for closed fracture
S12.300A	Unspecified displaced fracture of fourth cervical vertebra, initial encounter for closed fracture
S12.301A	Unspecified nondisplaced fracture of fourth cervical vertebra, initial encounter for closed fracture
S12.330A	Unspecified traumatic displaced spondylolisthesis of fourth cervical vertebra, initial encounter for closed fracture
S12.331A	Unspecified traumatic nondisplaced spondylolisthesis of fourth cervical vertebra, initial encounter for closed fracture
S12.34XA	Type III traumatic spondylolisthesis of fourth cervical vertebra, initial encounter for closed fracture
S12.350A	Other traumatic displaced spondylolisthesis of fourth cervical vertebra, initial encounter for closed fracture
S12.351A	Other traumatic nondisplaced spondylolisthesis of fourth cervical vertebra, initial encounter for closed fracture
S12.390A	Other displaced fracture of fourth cervical vertebra, initial encounter for closed fracture

ICD-10 Diagnosis Code	Description
Facet	
S12.391A	Other nondisplaced fracture of fourth cervical vertebra, initial encounter for closed fracture
S12.400A	Unspecified displaced fracture of fifth cervical vertebra, initial encounter for closed fracture
S12.401A	Unspecified nondisplaced fracture of fifth cervical vertebra, initial encounter for closed fracture
S12.430A	Unspecified traumatic displaced spondylolisthesis of fifth cervical vertebra, initial encounter for closed fracture
S12.431A	Unspecified traumatic nondisplaced spondylolisthesis of fifth cervical vertebra, initial encounter for closed fracture
S12.44XA	Type III traumatic spondylolisthesis of fifth cervical vertebra, initial encounter for closed fracture
S12.450A	Other traumatic displaced spondylolisthesis of fifth cervical vertebra, initial encounter for closed fracture
S12.451A	Other traumatic nondisplaced spondylolisthesis of fifth cervical vertebra, initial encounter for closed fracture
S12.490A	Other displaced fracture of fifth cervical vertebra, initial encounter for closed fracture
S12.491A	Other nondisplaced fracture of fifth cervical vertebra, initial encounter for closed fracture
S12.500A	Unspecified displaced fracture of sixth cervical vertebra, initial encounter for closed fracture
S12.501A	Unspecified nondisplaced fracture of sixth cervical vertebra, initial encounter for closed fracture
S12.530A	Unspecified traumatic displaced spondylolisthesis of sixth cervical vertebra, initial encounter for closed fracture
S12.531A	Unspecified traumatic nondisplaced spondylolisthesis of sixth cervical vertebra, initial encounter for closed fracture
S12.54XA	Type III traumatic spondylolisthesis of sixth cervical vertebra, initial encounter for closed fracture
S12.550A	Other traumatic displaced spondylolisthesis of sixth cervical vertebra, initial encounter for closed fracture
S12.551A	Other traumatic nondisplaced spondylolisthesis of sixth cervical vertebra, initial encounter for closed fracture
S12.590A	Other displaced fracture of sixth cervical vertebra, initial encounter for closed fracture
S12.591A	Other nondisplaced fracture of sixth cervical vertebra, initial encounter for closed fracture
S12.600A	Unspecified displaced fracture of seventh cervical vertebra, initial encounter for closed fracture
S12.601A	Unspecified nondisplaced fracture of seventh cervical vertebra, initial encounter for closed fracture
S12.630A	Unspecified traumatic displaced spondylolisthesis of seventh cervical vertebra, initial encounter for closed fracture
S12.631A	Unspecified traumatic nondisplaced spondylolisthesis of seventh cervical vertebra, initial encounter for closed fracture
S12.64XA	Type III traumatic spondylolisthesis of seventh cervical vertebra, initial encounter for closed fracture
S12.650A	Other traumatic displaced spondylolisthesis of seventh cervical vertebra, initial encounter for closed fracture
S12.651A	Other traumatic nondisplaced spondylolisthesis of seventh cervical vertebra, initial encounter for closed fracture
S12.690A	Other displaced fracture of seventh cervical vertebra, initial encounter for closed fracture

ICD-10 Diagnosis Code	Description
Facet	
S12.691A	Other nondisplaced fracture of seventh cervical vertebra, initial encounter for closed fracture
S12.9XXA	Fracture of neck, unspecified, initial encounter
S22.000A	Wedge compression fracture of unspecified thoracic vertebra, initial encounter for closed fracture
S22.001A	Stable burst fracture of unspecified thoracic vertebra, initial encounter for closed fracture
S22.002A	Unstable burst fracture of unspecified thoracic vertebra, initial encounter for closed fracture
S22.008A	Other fracture of unspecified thoracic vertebra, initial encounter for closed fracture
S22.009A	Unspecified fracture of unspecified thoracic vertebra, initial encounter for closed fracture
S22.010A	Wedge compression fracture of first thoracic vertebra, initial encounter for closed fracture
S22.011A	Stable burst fracture of first thoracic vertebra, initial encounter for closed fracture
S22.012A	Unstable burst fracture of first thoracic vertebra, initial encounter for closed fracture
S22.018A	Other fracture of first thoracic vertebra, initial encounter for closed fracture
S22.019A	Unspecified fracture of first thoracic vertebra, initial encounter for closed fracture
S22.020A	Wedge compression fracture of second thoracic vertebra, initial encounter for closed fracture
S22.021A	Stable burst fracture of second thoracic vertebra, initial encounter for closed fracture
S22.022A	Unstable burst fracture of second thoracic vertebra, initial encounter for closed fracture
S22.028A	Other fracture of second thoracic vertebra, initial encounter for closed fracture
S22.029A	Unspecified fracture of second thoracic vertebra, initial encounter for closed fracture
S22.030A	Wedge compression fracture of third thoracic vertebra, initial encounter for closed fracture
S22.031A	Stable burst fracture of third thoracic vertebra, initial encounter for closed fracture
S22.032A	Unstable burst fracture of third thoracic vertebra, initial encounter for closed fracture
S22.038A	Other fracture of third thoracic vertebra, initial encounter for closed fracture
S22.039A	Unspecified fracture of third thoracic vertebra, initial encounter for closed fracture
S22.040A	Wedge compression fracture of fourth thoracic vertebra, initial encounter for closed fracture
S22.041A	Stable burst fracture of fourth thoracic vertebra, initial encounter for closed fracture
S22.042A	Unstable burst fracture of fourth thoracic vertebra, initial encounter for closed fracture
S22.048A	Other fracture of fourth thoracic vertebra, initial encounter for closed fracture
S22.049A	Unspecified fracture of fourth thoracic vertebra, initial encounter for closed fracture
S22.050A	Wedge compression fracture of T5-T6 vertebra, initial encounter for closed fracture
S22.051A	Stable burst fracture of T5-T6 vertebra, initial encounter for closed fracture
S22.052A	Unstable burst fracture of T5-T6 vertebra, initial encounter for closed fracture
S22.058A	Other fracture of T5-T6 vertebra, initial encounter for closed fracture
S22.059A	Unspecified fracture of T5-T6 vertebra, initial encounter for closed fracture
S22.060A	Wedge compression fracture of T7-T8 vertebra, initial encounter for closed fracture
S22.061A	Stable burst fracture of T7-T8 vertebra, initial encounter for closed fracture
S22.062A	Unstable burst fracture of T7-T8 vertebra, initial encounter for closed fracture
S22.068A	Other fracture of T7-T8 thoracic vertebra, initial encounter for closed fracture
S22.069A	Unspecified fracture of T7-T8 vertebra, initial encounter for closed fracture
S22.070A	Wedge compression fracture of T9-T10 vertebra, initial encounter for closed fracture

ICD-10 Diagnosis Code	Description
Facet	
S22.071A	Stable burst fracture of T9-T10 vertebra, initial encounter for closed fracture
S22.072A	Unstable burst fracture of T9-T10 vertebra, initial encounter for closed fracture
S22.078A	Other fracture of T9-T10 vertebra, initial encounter for closed fracture
S22.079A	Unspecified fracture of T9-T10 vertebra, initial encounter for closed fracture
S22.080A	Wedge compression fracture of T11-T12 vertebra, initial encounter for closed fracture
S22.081A	Stable burst fracture of T11-T12 vertebra, initial encounter for closed fracture
S22.082A	Unstable burst fracture of T11-T12 vertebra, initial encounter for closed fracture
S22.088A	Other fracture of T11-T12 vertebra, initial encounter for closed fracture
S22.089A	Unspecified fracture of T11-T12 vertebra, initial encounter for closed fracture
S32.000A	Wedge compression fracture of unspecified lumbar vertebra, initial encounter for closed fracture
S32.001A	Stable burst fracture of unspecified lumbar vertebra, initial encounter for closed fracture
S32.002A	Unstable burst fracture of unspecified lumbar vertebra, initial encounter for closed fracture
S32.008A	Other fracture of unspecified lumbar vertebra, initial encounter for closed fracture
S32.009A	Unspecified fracture of unspecified lumbar vertebra, initial encounter for closed fracture
S32.010A	Wedge compression fracture of first lumbar vertebra, initial encounter for closed fracture
S32.011A	Stable burst fracture of first lumbar vertebra, initial encounter for closed fracture
S32.012A	Unstable burst fracture of first lumbar vertebra, initial encounter for closed fracture
S32.018A	Other fracture of first lumbar vertebra, initial encounter for closed fracture
S32.019A	Unspecified fracture of first lumbar vertebra, initial encounter for closed fracture
S32.020A	Wedge compression fracture of second lumbar vertebra, initial encounter for closed fracture
S32.021A	Stable burst fracture of second lumbar vertebra, initial encounter for closed fracture
S32.022A	Unstable burst fracture of second lumbar vertebra, initial encounter for closed fracture
S32.028A	Other fracture of second lumbar vertebra, initial encounter for closed fracture
S32.029A	Unspecified fracture of second lumbar vertebra, initial encounter for closed fracture
S32.030A	Wedge compression fracture of third lumbar vertebra, initial encounter for closed fracture
S32.031A	Stable burst fracture of third lumbar vertebra, initial encounter for closed fracture
S32.032A	Unstable burst fracture of third lumbar vertebra, initial encounter for closed fracture
S32.038A	Other fracture of third lumbar vertebra, initial encounter for closed fracture
S32.039A	Unspecified fracture of third lumbar vertebra, initial encounter for closed fracture
S32.040A	Wedge compression fracture of fourth lumbar vertebra, initial encounter for closed fracture
S32.041A	Stable burst fracture of fourth lumbar vertebra, initial encounter for closed fracture
S32.042A	Unstable burst fracture of fourth lumbar vertebra, initial encounter for closed fracture
S32.048A	Other fracture of fourth lumbar vertebra, initial encounter for closed fracture
S32.049A	Unspecified fracture of fourth lumbar vertebra, initial encounter for closed fracture
S32.050A	Wedge compression fracture of fifth lumbar vertebra, initial encounter for closed fracture
S32.051A	Stable burst fracture of fifth lumbar vertebra, initial encounter for closed fracture
S32.052A	Unstable burst fracture of fifth lumbar vertebra, initial encounter for closed fracture
S32.058A	Other fracture of fifth lumbar vertebra, initial encounter for closed fracture

ICD-10 Diagnosis Code	Description
Facet	
S32.059A	Unspecified fracture of fifth lumbar vertebra, initial encounter for closed fracture
S32.10XA	Unspecified fracture of sacrum, initial encounter for closed fracture
S32.110A	Nondisplaced Zone I fracture of sacrum, initial encounter for closed fracture
S32.111A	Minimally displaced Zone I fracture of sacrum, initial encounter for closed fracture
S32.112A	Severely displaced Zone I fracture of sacrum, initial encounter for closed fracture
S32.119A	Unspecified Zone I fracture of sacrum, initial encounter for closed fracture
S32.120A	Nondisplaced Zone II fracture of sacrum, initial encounter for closed fracture
S32.121A	Minimally displaced Zone II fracture of sacrum, initial encounter for closed fracture
S32.122A	Severely displaced Zone II fracture of sacrum, initial encounter for closed fracture
S32.129A	Unspecified Zone II fracture of sacrum, initial encounter for closed fracture
S32.130A	Nondisplaced Zone III fracture of sacrum, initial encounter for closed fracture
S32.131A	Minimally displaced Zone III fracture of sacrum, initial encounter for closed fracture
S32.132A	Severely displaced Zone III fracture of sacrum, initial encounter for closed fracture
S32.139A	Unspecified Zone III fracture of sacrum, initial encounter for closed fracture
S32.14XA	Type 1 fracture of sacrum, initial encounter for closed fracture
S32.15XA	Type 2 fracture of sacrum, initial encounter for closed fracture
S32.16XA	Type 3 fracture of sacrum, initial encounter for closed fracture
S32.17XA	Type 4 fracture of sacrum, initial encounter for closed fracture
S32.19XA	Other fracture of sacrum, initial encounter for closed fracture
S32.2XXA	Fracture of coccyx, initial encounter for closed fracture

DESCRIPTION OF SERVICES

Pain in the lower back is a common concern, affecting up to 90% of Americans at some point in their lifetime. The vast majority of episodes are mild and self-limited (Chronic nonmalignant back pain is defined as pain lasting 3 - 6 months or more that is not due to cancer). Up to 50% of affected persons will have more than one episode. Low back pain is not a specific disease; rather it is a symptom that may occur from a variety of different processes, including but not limited to spinal stenosis, disc herniation or degenerative changes in the vertebrae. Management of back pain that is persistent and disabling despite the use of recommended conservative treatment is challenging. Epidural steroid injections, and facet joint injections and blocks are among the treatments that have been employed as an alternative to more invasive interventions.

Facet blocks can be considered a diagnostic or therapeutic procedure. Facet blocks using short-acting local anesthetics can be used to diagnose facet (zygapophyseal) joint syndrome as the cause of chronic back pain. Facet blocks utilizing long acting local anesthetics, anti-inflammatory agents such as corticosteroids, or nerve ablating techniques such as radiofrequency lesioning have been investigated for treatment of chronic back pain attributed to facet joint syndrome. (Hayes, 2010, Archived 2011)

Epidural steroid injection (ESI) is a nonsurgical treatment for managing low back pain and sciatica caused by disc herniation or degenerative changes in the vertebrae. An epidural steroid injection is an injection of long lasting steroid in the epidural space; that is the area which surrounds the spinal cord and the nerves coming out of it. The goal of ESI is to relieve pain, improve function, and reduce the need for surgical intervention. (Hayes 2007, Updated 2016)

CLINICAL EVIDENCE

Ultrasound Guidance

Wu et al. (2016) conducted a meta analysis of controlled trials (randomized and non randomized) to assess the comparative effectiveness of ultrasound-guided (USG) versus computed tomography (CT)/fluoroscopy-guided lumbar facet joint injections in adults. Databases were searched for controlled trials comparing the clinical effectiveness between USG and CT/fluoroscopy-guided injection techniques in patients with facet syndrome were included. Two reviewers independently screened abstracts and full texts. The results of the mean procedure duration, decreased pain score, and Modified Oswestry Disability score after treatment were extracted and presented in the form of mean. Of 103 records screened, 3 studies were included, with a total of 202 adults with facet joint pain. There was no statistically significant difference between the 2 groups in pain score and Modified Oswestry Disability score after

injection. There was also no statistically significant difference in the mean procedure duration between the 2 groups. The authors concluded that while USG injection is feasible, and minimizes exposure of radiation to patients and practitioners in the lumbar facet joint injection process. This review suggested no significant differences in pain and functional improvement were noted between the USG and CT-/fluoroscopy-guided techniques in facet joint injection.

Facet Injections

Manchikanti et al. (2016) conducted a systematic evidence-based assessment methodology of controlled trials of diagnostic validity and randomized controlled trials to investigate the diagnostic validity and therapeutic value of lumbar facet joint interventions in managing chronic low back pain. The literature search was extensive utilizing various types of electronic search media, and inclusion criteria encompassed all facet joint interventions performed in a controlled fashion. Across all databases, 16 high quality diagnostic accuracy studies were identified and multiple studies assessed the influence of multiple factors on diagnostic validity. In contrast to diagnostic validity studies, therapeutic efficacy trials were limited to a total of 14 randomized controlled trials, assessing the efficacy of intraarticular injections, facet or zygapophysial joint nerve blocks, and radiofrequency neurotomy of the innervation of the facet joints. The pain relief of greater than 50% was the outcome measure for diagnostic accuracy assessment of the controlled studies with ability to perform previously painful movements, whereas, for randomized controlled therapeutic efficacy studies, the primary outcome was significant pain relief and the secondary outcome was a positive change in functional status. For the inclusion of the diagnostic controlled studies, all studies must have utilized either placebo controlled facet joint blocks or comparative local anesthetic blocks. In assessing therapeutic interventions, short-term and long-term reliefs were defined as either up to 6 mo or greater than 6 mo of relief. The evidence for the diagnostic validity of lumbar facet joint nerve blocks with at least 75% pain relief with ability to perform previously painful movements was level I, based on a range of level I to V derived from a best evidence synthesis. For therapeutic interventions, the evidence was variable from level II to III, with level II evidence for lumbar facet joint nerve blocks and radiofrequency neurotomy for long-term improvement (greater than 6 mo), and level III evidence for lumbosacral zygapophysial joint injections for short-term improvement only. The authors concluded that this review provides significant evidence for the diagnostic validity of facet joint nerve blocks, and moderate evidence for therapeutic radiofrequency neurotomy and therapeutic facet joint nerve blocks in managing chronic low back pain.

Vekaria et al. (2016). Evidence supporting the use of therapeutic intra-articular facet joint injections for patients with suspected facet joint pain is sparse. The authors conducted a systematic review, including a narrative synthesis to determine if intra-articular facet joint injections with active drug are more effective in reducing back pain and back pain-related disability than a sham procedure or a placebo/inactive injection. The authors also evaluated if intra-articular facet joint injections with active drug or placebo/inactive injection are more effective in reducing back pain and back pain-related disability than conservative treatment. Electronic databases were searched through April 2015. Data were screened and single extraction with independent verification and risk of bias assessment was performed. A total of 391 records were screened, and six trials were included. The trials included were small (range 18-109 participants) and overall in terms of pain and disability outcomes most were inconclusive. Only two of the trials report any significant between-group differences in pain or disability outcomes. The authors addressed limitations and flaws in these trials that were clinically diverse and precluded any meta-analysis. A number of methodological issues were identified. The positive results are interpreted with caution, and suggest that there is a need for further high-quality work in this area. Further randomised controlled trials of higher methodological standard comparing facet joint injection with a sham/placebo control or conservative treatment are needed from which to base any conclusion on the effectiveness of facet joints in improving pain and disability outcomes.

Manchikanti et al. (2010a) conducted a double-blind randomized controlled trial of facet joint nerve blocks to manage chronic low back pain. One hundred twenty patients were equally randomized to receive either a local anesthetic only (group I) or a local anesthetic mixed with a steroid (group II). Outcomes were measured at baseline, 3, 6, 12, 18 and 24 months post-treatment with the Numeric Rating Scale (NRS), the Oswestry Disability Index 2.0 (ODI), work status, and opioid intake. Significant pain relief ($\geq 50\%$) and functional improvement of $\geq 40\%$ were observed in 85% in Group I, and 90% in Group II, at 2-year follow-up. The authors found that both groups had equal relief with or without the addition of steroids to the treatment.

A systematic review by Boswell et al. (2007) evaluated the effectiveness of 3 types of facet joint interventions (intra-articular injections, medial branch nerve blocks, and neurotomy) in managing chronic spinal pain. The primary outcome measure was pain relief. For intra-articular facet joint injections and medial branch blocks, short-term pain relief was defined as relief lasting less than 6 weeks and long-term relief as 6 weeks or longer. For medial branch blocks, repeated injections at defined intervals provided long-term pain relief. For medial branch radiofrequency neurotomy, short-term pain relief was defined as relief lasting less than 3 months and long-term relief as lasting 3 months or longer. Other outcome measures included functional improvement, improvement of psychological status, and return to work. The authors concluded that for intra-articular facet joint injections, the evidence for short- and long-term pain relief is limited for cervical pain and moderate for lumbar pain. For medial branch blocks, the evidence

is moderate for short- and long-term pain relief. For medial branch neurotomy, the evidence is moderate for short- and long-term pain relief. The evidence for thoracic medial branch neurotomy is indeterminate.

Manchikanti (2006) also investigated 55 consecutive patients with thoracic facet joint pain treated with medial branch blocks. Significant pain relief was achieved in 71% of patients at 3 and 6 months, 71% at 24 months, and 69% at 36 months. The investigators concluded that thoracic medial branch blocks were an effective treatment for managing thoracic facet joint pain.

In a prospective, randomized, double-blind trial by Manchikanti et al. (2007), data from a total of 60 patients were included, with 15 patients in each of 4 groups. Thirty patients were in a non-steroid group consisting of Groups I (control, with lumbar facet joint nerve blocks using bupivacaine) and II (with lumbar facet joint nerve blocks using bupivacaine and Sarapin); another 30 patients were in a steroid group consisting of Groups III (with lumbar facet joint nerve blocks using bupivacaine and steroids) and IV (with lumbar facet joint nerve blocks using bupivacaine, Sarapin, and steroids). Significant improvement in pain and functional status were observed at 3 months, 6 months, and 12 months, compared to baseline measurements. The average number of treatments for 1 year was 3.7 with no significant differences among the groups. Duration of average pain relief with each procedure was 14.8 ± 7.9 weeks in the non-steroid group and 12.5 ± 3.3 weeks in the steroid group, with no significant differences among the groups. Therapeutic lumbar facet joint nerve blocks with local anesthetic, with or without Sarapin or steroids, may be effective in the treatment of chronic low back pain of facet joint origin.

Additional Information

Facet joint injection, as a diagnostic procedure prior to radiofrequency ablation, is not recommended in patients with:

- Neurologic abnormalities
- More than one pain syndrome
- Definitive clinical and/or imaging findings pointing to a specific diagnosis other than facet joint syndrome
- Previous spinal surgery at the clinically suspected levels

Professional Societies

American Society of Interventional Pain Physicians (ASIPP)

The Comprehensive Evidence-Based Guidelines for Interventional Techniques in Chronic Spinal Pain Update 2013
The ASIPP maintains a comprehensive guideline for facet injections including indications, limitations and therapy frequencies.

Epidural Steroid Injections

Overall, the evidence for the use of diagnostic and therapeutic injections in the treatment of acute and chronic back pain is limited. Clinical studies have demonstrated that epidural steroid injections have provided short-term improvement and may be considered in the treatment of selected patients with radicular pain as part of an active therapy program. There is insufficient evidence to demonstrate that epidural steroid injections are effective in the treatment of back pain in the absence of radicular symptoms.

Manchikanti et al (2014) sought to assess the effectiveness of transforaminal epidural injections of local anesthetic with or without steroids in managing chronic low back and lower extremity pain in patients with disc herniation and radiculitis. One hundred twenty patients were randomly assigned to 2 groups: Group I received 1.5 mL of 1% preservative-free lidocaine, followed by 0.5 mL of sodium chloride solution. Group II received 1% lidocaine, followed by 3 mg, or 0.5 mL of betamethasone. The sodium chloride solution and betamethasone were either clear liquids or were provided in opaque-covered syringes. The primary outcome measure was significant improvement (at least 50%) measured by the average Numeric Rating Scale (NRS) and the Oswestry Disability Index 2.0 (ODI). Secondary outcome measures were employment status and opioid intake. At 2 years there was significant improvement in all participants in 65% who received local anesthetic alone and 57% who received local anesthetic and steroid. When separated into non-responsive and responsive categories based on initial relief of at least 3 weeks with 2 procedures, significant improvement (at least 50% improvement in pain and function) was seen in 80% in the local anesthetic group and 73% in the local anesthetic with steroid group. Presumed limitations of this evaluation include the lack of a placebo group. The authors concluded transforaminal epidural injections of local anesthetic with or without steroids might be an effective therapy for patients with disc herniation or radiculitis. The present evidence illustrates the lack of superiority of steroids compared with local anesthetic at 2-year follow-up.

Friedly et al. (2014) reported that rigorous data are lacking regarding the effectiveness and safety of epidural glucocorticoid injections for the treatment of lumbar spinal stenosis. In a double-blind, multisite trial, the authors randomly assigned 400 patients who had lumbar central spinal stenosis and moderate-to-severe leg pain and disability to receive epidural injections of glucocorticoids plus lidocaine or lidocaine alone. The patients received one or two injections before the primary outcome evaluation, performed 6 weeks after randomization and the first injection. The primary outcomes were the score on the Roland-Morris Disability Questionnaire (RMDQ, in which scores range

from 0 to 24, with higher scores indicating greater physical disability) and the rating of the intensity of leg pain (on a scale from 0 to 10, with 0 indicating no pain and 10 indicating "pain as bad as you can imagine"). At 6 weeks, there were no significant between-group differences in the RMDQ score [adjusted difference in the average treatment effect between the glucocorticoid-lidocaine group and the lidocaine-alone group, -1.0 points; 95% confidence interval (CI), -2.1 to 0.1;] or the intensity of leg pain (adjusted difference in the average treatment effect, -0.2 points; 95% CI, -0.8 to 0.4;). A prespecified secondary subgroup analysis with stratification according to type of injection (interlaminar vs. transforaminal) likewise showed no significant differences at 6 weeks. The authors concluded in the treatment of lumbar spinal stenosis, epidural injection of glucocorticoids plus lidocaine offered minimal or no short-term benefit as compared with epidural injection of lidocaine alone.

Novak and Nemeth (2008) conducted a literature review to evaluate the effect of repeat epidural injections and/or the timing of injections to treat low back pain. Of the 91 articles identified, 15 were included in the review. The authors found little evidence to suggest that repeat epidural steroid injections are beneficial. The authors also found little evidence to suggest guidelines for frequency and timing of epidural steroid injections. The authors suggest that further studies with at least a 1 year follow-up are necessary to evaluate the timing and number of repeat injections.

Abdi et al. (2007) conducted a systemic review of published trials and abstracts of scientific meetings, published between January 1966 and October 2006, to determine the efficacy and safety of ESIs. The primary outcome measure was pain relief. Other outcome measures were functional improvement, improvement of psychological status, and return to work. They identified 11 randomized trials of lumbar interlaminar ESI. Of these studies, 8 had favorable results for short-term (< 6 weeks) relief and 1 was positive for long-term (6 weeks) relief. The level of evidence for interlaminar ESIs was considered strong for short-term pain relief and limited for long-term pain relief. There were 7 randomized trials of lumbar transforaminal ESI (TFESI), 5 of which had favorable results for both short- and long-term pain relief. The level of evidence for TFESI was considered strong for short-term pain relief and moderate for long-term pain relief. Of the 8 randomized trials of caudal ESIs, 5 had favorable results for short-term pain relief and 4 had favorable results for long-term pain relief. The level of evidence for caudal epidural injections was considered strong for short-term relief and moderate for long-term relief.

Manchicanti et al. (2010b) conducted a double-blind randomized controlled trial of interlaminar epidural steroid injections, with and without steroids, in managing chronic pain of lumbar disc herniation or radiculitis. Seventy patients were equally randomized to receive either a local anesthetic only (group I) or a local anesthetic mixed with a steroid (group II). Outcomes were measured at baseline, 3, 6, and 12 months post-treatment with the Numeric Rating Scale (NRS), the Oswestry Disability Index 2.0 (ODI), employment status, and opioid intake. Significant pain relief ($\geq 50\%$) was seen at 12 months in 74% of patients in group I and 86% in group II, and 69% and 83% in ODI scores respectively. Patients in group II also had more improvement in functional status at 12 months (83% vs. 69%) and required less opioid intake.

A total of 206 patients with a diagnosis of "postlaminectomy syndrome" were enrolled in Aldrete's (2003) randomized, blinded, comparative study of indomethacin or methylprednisolone. The results of the study suggested that epidural injection of indomethacin and methylprednisolone were equally effective at reducing back pain.

Buttermann (2004) conducted a randomized comparative study of epidural betamethasone injections or discectomy for the treatment of herniated nucleus pulposus. Initially the patients were treated with either epidural injections of betamethasone (n=50) or discectomy (n=50). Patients who failed to obtain relief with steroid injections were entered into a crossover group (n=27) and treated with discectomy. The discectomy group had earlier motor recovery than the steroid group; however, there were no other significant differences between groups. The results suggested that epidural betamethasone injections were not as effective as discectomy. However, steroid injections were effective for up to 3 years in nearly half of the patients who had not responded to conservative treatment.

Khot et al. (2004) performed a single-blind, randomized, placebo-controlled study of epidural steroid injection for patients with low back pain of discogenic origin. In this study, 60 patients were randomly assigned to receive epidural methylprednisolone, while 60 patients received a placebo epidural injection. After 1 year, there was no difference in outcome between the treatment and placebo groups.

In one of the largest recent double-blind, randomized studies, Price et al. (2005) evaluated the effect of epidural steroid injection on 228 patients with either acute or chronic sciatica. Patients received either epidural steroid or placebo injection, up to 3 injections, and were then evaluated periodically for a 12-month period. At 3 weeks after injection, more patients in the steroid group reported reduction in pain and showed improvement in the Oswestry Disability Index score than did patients in the placebo group; however, at all other follow-up times, there were no significant differences in any outcomes between the treatment and control group. This suggested that any effect of epidural steroid was transient.

Cyteval et al. (2006) prospectively followed 229 patients with lumbar radiculopathy (herniated disc and degenerative lesions) at 2 weeks and 1 year after percutaneous periradicular (transforaminal) steroid infiltration. The aim of the study was to find predictive factors of efficacy of the steroid injection procedure. ESIs were performed under fluoroscopic guidance, and periradicular flow was confirmed with contrast medium. Short- and long-term pain relief was demonstrated. The only predictive factor of pain relief was symptom duration before the procedure. The authors concluded that periradicular (transforaminal) infiltration was a simple, safe, and effective (short- and long-term relief) nonsurgical procedure with an improved benefit when performed early in the course of the illness. The primary limitation of the study was the lack of a control group.

Complications associated with epidural injections include steroid side effects, dural puncture, transient increased pain, transient paresthesias, aseptic and/or bacterial meningitis, neurological dysfunction or damage, epidural abscess, intracranial air, allergic reaction, epidural hematoma, persistent dural leak, nausea, headache, paraplegia, tetraplegia, seizure, stroke, and death. (Derby, 2004; Everett, 2004)

Epidural steroid injections should not be performed at the site of congenital anatomic anomalies or in persons who have had previous surgery in which the epidural space is absent, altered, or eliminated. The treatment is contraindicated in patients with systemic infections or bleeding tendencies; infection at the injection site; patients undergoing active anticoagulation therapy; patients at risk for medical decompensation from fluid retention, such as those with severe congestive heart failure or poorly controlled hypertension; and patients with other unstable medical conditions. Steroid injections may lower resistance to infection and should be used with caution in patients with poorly controlled diabetes, since the corticosteroid injection may transiently increase the blood glucose levels. In addition, fluoroscopy should not be used to guide epidural injections for pregnant women to avoid radiation exposure of the fetus. (McLain, 2005)

Clinical Trials

There are several clinical trials recruiting and in process for Facet and Epidural Steroid Injections. Please see: <https://clinicaltrials.gov/ct2/home> and search by procedure name for specific opportunities. (Accessed November 8, 2017)

Professional Societies/Technology Assessments

Agency for Healthcare Research and Quality (AHRQ)

Technology Assessment Program Pain Management Injection Therapies for Low Back Pain (2015)

For this technology assessment, the authors used predefined criteria, and selected randomized trials of patients with lumbosacral radiculopathy, spinal stenosis, nonradicular back pain, or chronic postsurgical back pain that compared effectiveness or harms of epidural, facet joint, or sacroiliac corticosteroid injections versus placebo or other interventions. Also included were randomized trials that compared different injection techniques and large (sample sizes >1000) observational studies of back injections that reported harms. Seventy-eight randomized trials of epidural injections, 13 trials of facet joint injections, and one trial of sacroiliac injections were included. Limited evidence suggested that epidural corticosteroid injections are not effective for spinal stenosis or nonradicular back pain and that facet joint corticosteroid injections are not effective for presumed facet joint pain. There was insufficient evidence to evaluate effectiveness of sacroiliac joint corticosteroid injections. (Chou et al 2015)

American Society of Anesthesiologists (ASA)

Practice Guidelines for Chronic Pain Management An Updated Report by the American Society of Anesthesiologists Task Force on Chronic Pain Management and the American Society of Regional Anesthesia and Pain Medicine. As of 2010, the ASA has not issued a statement specifically on the use of epidural steroids for the management of low back pain and/or sciatica. However, the ASA Task Force on Pain Management issued more general practice guidelines for chronic pain management. The 2010 ASA guidelines recommended that: Epidural steroid injections with or without local anesthetics may be used as part of a multimodal treatment regimen to provide pain relief in selected patients with radicular pain or radiculopathy. Transforaminal epidural injections should be performed with appropriate image guidance to confirm correct needle position and spread of contrast before injecting a therapeutic substance.

American Academy of Neurology (AAN)

In 2007, (Armon, 2007) the Therapeutics and Technology Assessment Subcommittee of the AAN released an assessment addressing the use of epidural steroid injections (ESIs) to treat radicular lumbosacral pain.

- Epidural steroid injections may result in some improvement in radicular lumbosacral pain when determined between 2 and 6 weeks following the injection, compared to control treatment (Level C, Class I to III evidence). The average magnitude of effect is small, and the generalizability of the observation is limited by the small number of studies, limited to highly selected patient populations, the few techniques and doses studied, and variable comparison treatments.

- In general, epidural steroid injections for radicular lumbosacral pain have shown no impact on average impairment of function, on need for surgery, or on long-term pain relief beyond 3 months. Their routine use for these indications is not recommended (Level B, Class I to III evidence).
- Data on use of epidural steroid injections to treat cervical radicular pain are inadequate to make any recommendation (Level U).

American Society of Interventional Pain Physicians (ASIPP)

The Comprehensive Evidence-Based Guidelines for Interventional Techniques in Chronic Spinal Pain, Updated 2013
The ASIPP maintains a comprehensive guideline for epidural steroid injections including indications, limitations and therapy frequencies.

American Association of Neurological Surgeons and the Congress of Neurological Surgeons

A guideline from the American Association of Neurological Surgeons and the Congress of Neurological Surgeons states: There is no meaningful evidence in the medical literature that the use of epidural injections is of any long-term value in the treatment of patients with chronic low-back pain. The literature does indicate that the use of lumbar epidural injections can provide short-term relief in selected patients with chronic low-back pain. There is evidence that suggests that facet joint injections can be used to predict outcome after RF ablation of a facet joint. The predictive ability of facet joint injections does not appear to apply to lumbar fusion surgery. No evidence exists to support the effectiveness of facet injections in the treatment of patients with chronic low-back pain. . (Resnick, 2005)

North American Spine Society (NASS)

The 2012 North American Spine Society (NASS) clinical guidelines for multidisciplinary spine care diagnosis and treatment of lumbar disc herniation with radiculopathy stated there were no studies available which directly addressed the role of ESIs or selective nerve root blocks in the diagnosis of patient selection for subsequent surgical treatment of a lumbar disc herniation with radiculopathy.

In 2011, NASS revised its clinical guidelines for multidisciplinary spine care diagnosis and treatment of degenerative lumbar spinal stenosis with the following recommendation: that while there is evidence that nonfluoroscopically guided interlaminar and single radiographically guided transforaminal ESIs can result in short-term symptom relief in patients with neurogenic claudication or radiculopathy, there is conflicting evidence concerning long-term efficacy. The guidelines also note that there is some evidence that a multiple injection regimen of radiographically guided transforaminal ESIs or caudal injections can produce long-term relief of pain in patients with radiculopathy or neurogenic intermittent claudication from lumbar spinal stenosis. However, the evidence is of relatively poor quality, and therefore no strong recommendation in support of this therapy was made.

U.S. FOOD AND DRUG ADMINISTRATION (FDA)

Epidural Steroid Injection is a procedure and, therefore, not subject to FDA regulation. However, any medical devices, drugs, biologics, or tests used as a part of this procedure may be subject to FDA regulation. Injectable corticosteroids include methylprednisolone, hydrocortisone, triamcinolone, betamethasone, and dexamethasone, and are approved by the FDA, however, the effectiveness and safety of the drugs for Epidural Steroid Injection have not been established, and FDA has not approved corticosteroids for such use.

In April 2014, the U.S. Food and Drug Administration (FDA) warned, that injection of corticosteroids into the epidural space of the spine may result in rare but serious adverse events, including loss of vision, stroke, paralysis, and death. They noted the effectiveness and safety of epidural administration of corticosteroids have not been established, and the FDA has not approved corticosteroids for this use. FDA is requiring the addition of a warning to the drug labels of injectable corticosteroids to describe these risks. The FDA recommends that individuals should discuss the benefits and risks of epidural corticosteroid injections with their health care professionals, along with the benefits and risks associated with other possible treatments.

Additional information may be obtained from the U.S. Food and Drug Administration - Center for Drug Evaluation and Research (CDER) at: <http://www.fda.gov/cder/drug/default.htm>. (Accessed November 8, 2017)

REFERENCES

The foregoing Oxford policy has been adapted from an existing UnitedHealthcare national policy that was researched, developed and approved by UnitedHealthcare Medical Technology Assessment Committee. [2018T0004DD]

Abdi S, Datta S, Lucas LF. Role of epidural steroids in the management of chronic spinal pain: a systematic review of effectiveness and complications. *Pain Physician*. 2005.

Abdi S, Datta S, Trescot AM, et al. Epidural steroids in the management of chronic spinal pain: a systematic review. *Pain Physician*. 2007.

Aldrete JA. Epidural injections of indomethacin for postlaminectomy syndrome: a preliminary report. *Anesth Analg*. 2003;96(2):463-468.

American Academy of Neurology (AAN) . Review of the literature on spinal ultrasound for the evaluation of back pain and radicular disorders. Report of the Therapeutics and Technology Assessment Subcommittee of the American Academy of Neurology. 1998. Reaffirmed 2006.

American Academy of Neurology (AAN). Summary of Evidence-based Guideline for Clinicians: Use of Epidural Steroid Injections to Treat Radicular Lumbosacral Pain. 2007.

American Society of Anesthesiologists (ASA). Practice Guidelines for Chronic Pain Management: An Updated Report by the American Society of Anesthesiologists Task Force on Chronic Pain Management and the American Society of Regional Anesthesia and Pain Medicine. *Anesthesiology* 2010.

Benyamin RM, et al. The effectiveness of lumbar interlaminar epidural injections in managing chronic low back and lower extremity pain. *Pain Physician* 2012.

Boswell MV, Colson JD, Sehgal N, et al. A Systematic Review of Therapeutic Facet Joint Interventions in Chronic Spinal Pain. *Pain Physician* 2007.

Boswell MV, Trescot AM, Datta S, et al. Interventional techniques: evidence-based practice guidelines in the management of chronic spinal pain. *Pain Physician*. 2007 Jan.

Buttermann GR. Treatment of lumbar disc herniation: epidural steroid injection compared with discectomy. A prospective, randomized study. *J Bone Joint Surg Am*. 2004.

Chou R, Hashimoto R, Friedly J, et al. *J. Pain Management Injection Therapies for Low Back Pain*. Rockville (MD): Agency for Healthcare Research and Quality 2015.

Chou R, Loeser JD, Owens DK, et al. for the American Pain Society Low Back Pain Guideline Panel. Interventional therapies, surgery, and interdisciplinary rehabilitation for low back pain. *Spine*. 2009 (Reaffirmed August 2015).

Cyteval C, Fescquet N, Thomas E, et al. Predictive factors of efficacy of periradicular corticosteroid injections for lumbar radiculopathy. *AJNR Am J Neuroradiol*. 2006.

Derby R, Lee S-H, Kim B-J, et al. Complications following cervical epidural steroid injections by expert interventionalists in 2003. *Pain Physician*. 2004.

ECRI Institute. Custom Rapid Response. Epidural Steroid Injections for Treating Lumbar Radiculopathy. January 2007. Updated December 2012.

Everett CR, Baskin MN, Novoseletsky D, et al. Flushing as a side effect following lumbar transforaminal epidural steroid injection. *Pain Physician*. 2004;7(4):427-429

Friedly JL, Comstock BA, Turner JA, et al. A randomized trial of epidural glucocorticoid injections for spinal stenosis. *N Engl J Med*. 2014.

Goertz M, Thorson D, Bonsell J, et al. Institute for Clinical Systems Improvement. Adult Acute and Subacute Low Back Pain. Updated November 2012.

Hayes, Inc. Medical Technology Directory. Epidural Steroid for Treatment of Central Spinal Stenosis. Lansdale, PA: January 2015. Archived February 2016.

Hayes, Inc. Medical Technology Directory. Epidural Steroid Injections for Low Back Pain and Sciatica. Lansdale, PA: January 2016.

Hayes, Inc. Medical Technology Directory. Facet Blocks for Chronic Back Pain. Lansdale, PA: October 2010. Archived November 2011.

Khot A, Bowditch M, Powell J, et al. The use of intradiscal steroid therapy for lumbar spinal discogenic pain: a randomized controlled trial. *Spine*. 2004.

Manchikanti L, Hirsch JA, Falco FJ, et al. Management of lumbar zygapophysial (facet) joint pain. *World J Orthop*. 2016.

Manchikanti L, Abdi S, Atluri S, et al. An update of comprehensive evidence-based guidelines for interventional techniques in chronic spinal pain. Part II: guidance and recommendations. *Pain Physician*.

Manchikanti L, Boswell MV, Singh V, et al. Comprehensive evidence-based guidelines for interventional techniques in the management of chronic spinal pain. *Pain Physician*. 2009.

Manchikanti L, Candido KD, Kaye AD, et al. Randomized trial of epidural injections for spinal stenosis published in the *New England Journal of Medicine*: further confusion without clarification. *Pain Physician*. 2014.

Manchikanti L, Cash KA, Pampati V, et al. Transforaminal epidural injections in chronic lumbar disc herniation: a randomized, double-blind, active-control trial. *Pain Physician*. 2014.

Manchikanti L, Manchikanti KN, Manchukonda R, et al. Evaluation of lumbar facet joint nerve blocks in the management of chronic low back pain: preliminary report of a randomized, double-blind controlled trial. *Pain Physician*. 2007.

Manchikanti L, Manchikanti KN, Manchukonda R, et al. Evaluation of therapeutic thoracic medial branch block effectiveness in chronic thoracic pain: a prospective outcome study with minimum 1-year follow up. *Pain Physician*. 2006.

Manchikanti L, Singh V, Cash KA, et al. A randomized, double-blind, active-control trial of the effectiveness of lumbar interlaminar epidural injections in disc herniation. *Pain Physician*. 2014.

Manchikanti L, Singh V, Falco FJ, et al. Evaluation of lumbar facet joint nerve blocks in managing chronic low back pain: a randomized, double-blind, controlled trial with a 2-year follow-up. *Int J Med Sci*. 2010a.

Manchikanti L, Singh V, Falco FJ, et al. Evaluation of the effectiveness of lumbar interlaminar epidural injections in managing chronic pain of lumbar disc herniation or radiculitis: a randomized, double-blind, controlled trial. *Pain Physician*. 2010b..

McLain RF, Kapural L, Mekhail NA. Epidural steroid therapy for back and leg pain: mechanisms of action and efficacy. *Spine J*. 2005.

North American Spine Society (NASS). Clinical guidelines for multidisciplinary spine care diagnosis and treatment of lumbar disc herniation with radiculopathy. 2012

North American Spine Society (NASS). Clinical Guidelines for multidisciplinary spine care. diagnosis and treatment of degenerative lumbar spinal stenosis. (Updated 2011).

Novak S, Nemeth W. The Basis for Recommending Repeating Epidural Steroid Injections for Radicular Low Back Pain: A Literature Review. *Arch Phys Med Rehabil*. 2008.

Price C, Arden N, Cогlan L, et al. Cost-effectiveness and safety of epidural steroids in the management of sciatica. *Health Technol Assess*. 2005.

Resnick, D. K., Choudhri, T. F., Dailey, A. T., et al. Guidelines for the performance of fusion procedures for degenerative disease of the lumbar spine. Part 13: injection therapies, low-back pain, and lumbar fusion. *J Neurosurg Spine*. 2005.

Vekaria R, Bhatt R, Ellard DR, et al. Intra-articular facet joint injections for low back pain: a systematic review. *Eur Spine J*. 2016.

Wu T, Zhao WH, Dong Y, et al. Effectiveness of Ultrasound-Guided Versus Fluoroscopy or Computed Tomography Scanning Guidance in Lumbar Facet Joint Injections in Adults With Facet Joint Syndrome: A Meta-Analysis of Controlled Trials. *Arch Phys Med Rehabil*. 2016.

POLICY HISTORY/REVISION INFORMATION

Date	Action/Description
12/01/2018	<ul style="list-style-type: none"> Reformatted list of applicable ICD-10 diagnosis codes
11/01/2018	<ul style="list-style-type: none"> Reorganized policy template: <ul style="list-style-type: none"> Simplified and relocated <i>Instructions for Use</i> Removed <i>Benefit Considerations</i> section Updated coverage rationale; modified language to clarify the listed services are: <ul style="list-style-type: none"> Proven and medically necessary (as described) Unproven and not medically necessary (as described) Archived previous policy version PAIN 019.22 T2

INSTRUCTIONS FOR USE

This Clinical Policy provides assistance in interpreting UnitedHealthcare Oxford standard benefit plans. When deciding coverage, the member specific benefit plan document must be referenced as the terms of the member specific benefit plan may differ from the standard plan. In the event of a conflict, the member specific benefit plan document governs. Before using this policy, please check the member specific benefit plan document and any applicable federal or state mandates. UnitedHealthcare Oxford reserves the right to modify its Policies as necessary. This Clinical Policy is provided for informational purposes. It does not constitute medical advice.

The term Oxford includes Oxford Health Plans, LLC and all of its subsidiaries as appropriate for these policies. Unless otherwise stated, Oxford policies do not apply to Medicare Advantage members.

UnitedHealthcare may also use tools developed by third parties, such as the MCG™ Care Guidelines, to assist us in administering health benefits. UnitedHealthcare Oxford Clinical Policies are intended to be used in connection with the independent professional medical judgment of a qualified health care provider and do not constitute the practice of medicine or medical advice.