No review or update is scheduled on this Medical Policy as it is unlikely that further published literature would change the policy position. If there are questions about coverage of this service, please contact Blue Cross and Blue Shield of Kansas customer service, your professional or institutional relations representative, or submit a predetermination request.

Medical Policy

BlueCross BlueShield Kansas
An Independent licensee of the Blue Cross Blue Shield Association

Title: Lysis of Epidural Adhesions

Professional
Original Effective Date: October 18, 2004
Revision Date(s): September 7, 2005; February 21, 2006; May 6, 2006; July 27, 2006; September 14, 2006; October 31, 2006; January 1, 2007; November 18, 2009; February 8, 2010; January 1, 2012; March 28, 2012; March 13, 2013; August 15, 2014; February 16, 2015; February 17, 2016; April 25, 2018; January 16, 2019; February 25, 2021
Current Effective Date: February 8, 2010

Archived Date: June 3, 2021

Institutional
Original Effective Date: July 1, 2005
Revision Date(s): September 7, 2005; February 21, 2006; May 6, 2006; July 27, 2006; September 14, 2006; October 31, 2006; January 1, 2007; November 18, 2009; February 8, 2010; January 1, 2012; March 28, 2012; March 13, 2013; August 15, 2014; February 16, 2015; February 17, 2016; April 25, 2018; January 16, 2019; February 25, 2021
Current Effective Date: February 8, 2010

Archived Date: June 3, 2021

State and Federal mandates and health plan member contract language, including specific provisions/exclusions, take precedence over Medical Policy and must be considered first in determining eligibility for coverage. To verify a member's benefits, contact Blue Cross and Blue Shield of Kansas Customer Service.

The BCBSKS Medical Policies contained herein are for informational purposes and apply only to members who have health insurance through BCBSKS or who are covered by a self-insured group plan administered by BCBSKS. Medical Policy for FEP members is subject to FEP medical policy which may differ from BCBSKS Medical Policy.

The medical policies do not constitute medical advice or medical care. Treating health care providers are independent contractors and are neither employees nor agents of Blue Cross and Blue Shield of Kansas and are solely responsible for diagnosis, treatment and medical advice.

If your patient is covered under a different Blue Cross and Blue Shield plan, please refer to the Medical Policies of that plan.

No review or update is scheduled on this Medical Policy as it is unlikely that further published literature would change the policy position. If there are questions about coverage of this service, please contact Blue Cross and Blue Shield of Kansas customer service, your professional or institutional relations representative, or submit a predetermination request.

Populations	Interventions	Comparators	Outcomes
Individuals: • With epidural adhesions	Interventions of interest are: • Lysis	Comparators of interest are: • Medical management	Relevant outcomes include: • Symptoms • Functional outcomes • Quality of life • Medication use • Treatment-related morbidity

DESCRIPTION

Lysis of epidural adhesions involves passing a catheter, either endoscopically or percutaneously, under fluoroscopic guidance into the epidural space to break up adhesions and reduce pain and inflammation

OBJECTIVE

The objective of this evidence review is to determine whether the use of epidural injections for lysis of adhesions-either by using hypertonic saline alone or by using hypertonic saline in combination with corticosteroids, analgesics, or mechanical disruption-improves the net health outcome.

BACKGROUND

Epidural Fibrosis and Adhesive Arachnoiditis Epidural fibrosis with or without adhesive arachnoiditis most commonly occurs as a complication of spinal surgery and may be included under the diagnosis of "failed back surgery syndrome". Both conditions result from the manipulation of the supporting structures of the spine. Epidural fibrosis can occur in isolation, but adhesive arachnoiditis is rarely present without associated epidural fibrosis. Arachnoiditis is most frequently seen in patients who have undergone multiple surgical procedures. Epidural fibrosis and adhesive arachnoiditis are related to inflammatory reactions that result in the entrapment of nerves within dense scar tissue, increasing the susceptibility of the nerve root to compression or tension. The condition most frequently involves the nerves within the lumbar spine and cauda equina. Signs and symptoms indicate the involvement of multiple nerve roots and include low back pain, radicular pain, tenderness, sphincter disturbances, limited trunk mobility, muscular spasm or contracture, and motor-sensory and reflex changes. Typically, pain is characterized as constant and burning. In some cases, pain and disability are severe, leading to analgesic dependence and chronic invalidism. Treatment Lysis of epidural adhesions, also called the Racz procedure, has been investigated as a treatment option. The Racz procedure involves the passage of a fluoroscopically guided catheter (the Racz catheter), inserted either endoscopically or percutaneously, and the use of epidural injections of hypertonic saline in conjunction with corticosteroids and analgesics. Theoretically, the use of hypertonic saline results in mechanical disruption of the adhesions. The saline may also function to reduce edema within previously scarred and/or inflamed nerves. Finally, manipulating the catheter at the time of the injection may disrupt adhesions. Spinal endoscopy has been used to guide the lysis procedure, but the procedure is more commonly performed percutaneously using epidurography to guide catheter placement and identify nonfilling adhesions that indicate epidural scarring. Using endoscopy

No review or update is scheduled on this Medical Policy as it is unlikely that further published literature would change the policy position. If there are questions about coverage of this service, please contact Blue Cross and Blue Shield of Kansas customer service, your professional or institutional relations representative, or submit a predetermination request.

guidance, a flexible fiberoptic catheter is inserted into the sacral hiatus, providing 3-dimensional visualization to steer the catheter toward the adhesions. With the increased visualization, the catheter is more apt to precisely place the injectate in the epidural space and onto the nerve root. Various protocols for lysis have been described; in some situations, the catheter may remain in place for several days for serial treatment sessions. Endoscopic epidurolysis is also being investigated to treat degenerative chronic low back pain, including spondylolisthesis, stenosis, and hernia associated with radiculopathy. Along with mechanical adhesiolysis, hyaluronidase, ciprofloxacin, and ozone have been applied. Regulatory Status Lysis of epidural adhesions is a surgical procedure and, as such, is not subject to regulation by the U.S. Food and Drug Administration.

POLICY

Catheter-based techniques for lysis of epidural adhesions, with or without endoscopic guidance, are considered **experimental / investigational**. Techniques used either alone or in combination include mechanical disruption with a catheter and/or injection of hypertonic solutions with corticosteroids, analgesics, or hyaluronidase.

RATIONALE

This evidence review was created in November 1998 and has been updated regularly with searches of the PubMed database. The most recent literature update was performed through August 20, 2020. Evidence reviews assess the clinical evidence to determine whether the use of technology improves the net health outcome. Broadly defined, health outcomes are the length of life, quality of life, and ability to function-including benefits and harms. Every clinical condition has specific outcomes that are important to patients and managing the course of that condition. Validated outcome measures are necessary to ascertain whether a condition improves or worsens; and whether the magnitude of that change is clinically significant. The net health outcome is a balance of benefits and harms. To assess whether the evidence is sufficient to draw conclusions about the net health outcome of technology, two domains are examined: the relevance, and quality and credibility. To be relevant, studies must represent one or more intended clinical use of the technology in the intended population and compare an effective and appropriate alternative at a comparable intensity. For some conditions, the alternative will be supportive care or surveillance. The quality and credibility of the evidence depend on study design and conduct, minimizing bias and confounding that can generate incorrect findings. The randomized controlled trial (RCT) is preferred to assess efficacy; however, in some circumstances, nonrandomized studies may be adequate. RCTs are rarely large enough or long enough to capture less common adverse events and long-term effects. Other types of studies can be used for these purposes and to assess generalizability to broader clinical populations and settings of clinical practice. Lysis The evidence for lysis of epidural adhesions consists of single-center trials, most of them from a single U.S. pain management group. Clinical Context and Therapy Purpose The purpose of lysis in patients who have epidural adhesions is to provide a treatment option that is an alternative to or an improvement on existing therapies. The question

addressed in this evidence review is: Does the use of lysis improve the net health outcome in patients with epidural adhesions? The following PICO was used to select literature to inform this review. Populations The relevant population of interest is individuals with epidural adhesions. Interventions The therapy being considered is lysis. Lysis is a surgical procedure generally administered in an inpatient hospital setting under conscious sedation using imaging guidance. Comparators The following practice is currently being used to treat lysis: medical management. Outcomes The general outcomes of interest are reductions in symptoms (eg, pain severity) and medication use, improvement in functional improvement, and treatment-related adverse events (eg, neurologic deficits). Postsurgical follow-up can range from 6 to 8 weeks. Review of Evidence Systematic Reviews A systematic review on endoscopic adhesiolysis by Helm et al (2013) included an RCT and 3 observational studies and noted there was a limited amount of literature on endoscopic adhesiolysis. 1, Despite limitations in available evidence, using U.S. Preventive Services Task Force quality of evidence criteria, reviewers concluded there was fair evidence that spinal endoscopic adhesiolysis is effective in reducing chronic low back and/or leg pain in post lumbar surgery syndrome in both the short- and long-term (>12 months). Hayek et al (2009) concluded that, based on level II-1 or II-2 evidence (1 randomized trial, 5 observational studies), endoscopic adhesiolysis provides short- and long-term relief of pain based on the U.S. Preventive Services Task Force criteria. 2, Epter et al (2009) with Hayek et al (2009) and others concluded that there was level I or II evidence (3 randomized trials, 4 observational studies) for percutaneous adhesiolysis. 3,2, In a review, Racz et al (2008) concluded, based on the literature (randomized trials and case series) and expert opinion, that evidence was strong for short-term (3 months) efficacy and moderate for long-term (>3 months) efficacy. 4, A review by Chopra et al (2005) 5, focused on 3 randomized studies by Heavner and Manchikanti and concluded that there was moderate-to-strong evidence of the effectiveness of percutaneous adhesiolysis. A 2007 update of that review also concluded that there was strong evidence for short-term and moderate evidence of long-term effectiveness of percutaneous adhesiolysis and spinal endoscopy. 6, Applying the U.S. Preventive Services Task Force criteria, a 2012 update of the review found fair evidence that percutaneous adhesiolysis is effective in relieving low back and/or leg pain caused by post lumbar surgery syndrome or spinal stenosis. 7, Complications were considered to be minimal. The primary studies cited in these reviews were assessed individually for this evidence review (see the following sections). Percutaneous Lysis of Adhesions Without Spinal Endoscopy Review of Evidence Randomized Controlled Trials Gerdesmeyer et al (2013) reported on a randomized, double-blind, placebo-controlled trial assessing percutaneous epidural lysis of adhesions for chronic lumbar radicular pain at 4 participating treatment centers. 8, Of 381 patients screened, 90 patients were randomized in permuted blocks of 4 to 8 to adhesiolysis or placebo. Eligible patients had chronic lumbosacral radicular pain after disc protrusion or after failed back surgery and had completed at least 4 months of unsuccessful conservative treatment. Patients in both groups (adhesiolysis and placebo) received injections on each of 3 days and physical therapy after the series of injections. In the adhesiolysis group, the day 1 injection consisted of 10 mL saline with 150 U/mL hyaluronidase, plus 10 mL saline with 40 mg triamcinolone and 2 mL of 0.25% bupivacaine; this initial injection was followed by day 2 and 3 injections of saline with an anesthetic. The placebo group received saline injections each of the 3 days through a catheter placed over the affected area but not into the spinal canal. After 3

No review or update is scheduled on this Medical Policy as it is unlikely that further published literature would change the policy position. If there are questions about coverage of this service, please contact Blue Cross and Blue Shield of Kansas customer service, your professional or institutional relations representative, or submit a predetermination request.

months, the Oswestry Disability Index (ODI) score significantly improved in the adhesiolysis group (55.3 to 26.4) compared with the placebo group (55.4 to 41.8; p50% reduction in VAS score) was achieved by 73% of patients in the lysis group compared with 12% in the control group (p

CODING

The following codes for treatment and procedures applicable to this policy are included below for informational purposes. Inclusion or exclusion of a procedure, diagnosis or device code(s) does not constitute or imply member coverage or provider reimbursement. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage of these services as it applies to an individual member.

CPT/HCPCS

62263	Percutaneous lysis of epidural adhesions using solution injection (eg, hypertonic saline, enzyme) or mechanical means (eg, catheter) including radiologic localization (includes contrast when administered), multiple adhesiolysis sessions; 2 or more days
62264	Percutaneous lysis of epidural adhesions using solution injection (eg, hypertonic saline, enzyme) or mechanical means (eg, catheter) including radiologic localization (includes contrast when administered), multiple adhesiolysis sessions; 1 day

DIAGNOSIS

Experimental / Investigational for all diagnoses related to this medical policy.

REVISIONS

02-08-2010	The Lysis of Epidural Adhesions medical policy is a new freestanding policy developed from the Minimally Invasive Procedures for Spine Pain medical policy which was effective October 18, 2004. The Minimally Invasive Procedures for Spine Pain is no longer an active medical policy.
01-01-2012	In the Coding section: ▪ Removed HCPCS code: J7130 ▪ Added HCPCS code: J7131
	Updated the Reference section.
03-28-2012	Updated Rationale section.
	Updated Reference section.
03-13-2013	Updated Rationale section.
	Updated Reference section.
08-15-2014	In the Coding Section: ▪ Removed HCPCS code: J7131 ▪ Added HCPCS code: J7130

No review or update is scheduled on this Medical Policy as it is unlikely that further published literature would change the policy position. If there are questions about coverage of this service, please contact Blue Cross and Blue Shield of Kansas customer service, your professional or institutional relations representative, or submit a predetermination request.

	▪ Removed reference to ICD-9 codes 349.0-349.9
	Updated Rationale section.
	Updated Reference section.
02-16-2015	Updated Description section.
	Updated Rationale section.
	In Coding section: ▪ Removed HCPCS code: J7130
02-17-2016	Updated Description section.
	Updated Rationale section.
	Updated References section.
04-25-2018	Updated Description section.
	Updated Rationale section.
	Updated References section.
01-16-2019	Updated Description section.
	Updated Rationale section.
	Updated References section.
02-25-2021	Updated Description section.
	Updated Rationale section.
	Updated References section.
06-03-2021	Archived

REFERENCES

Helm S, Hayek SM, Colson J, et al. Spinal endoscopic adhesiolysis in post lumbar surgery syndrome: an update of
assessment of the evidence. Pain Physician. Apr 2013; 16(2 Suppl): SE125-50. PMID 23615889
2. Hayek SM, Helm S, Benyamin RM, et al. Effectiveness of spinal endoscopic adhesiolysis in post lumbar surgery
syndrome: a systematic review. Pain Physician. Mar-Apr 2009; 12(2): 419-35. PMID 19305488
3. Epter RS, Helm S, Hayek SM, et al. Systematic review of percutaneous adhesiolysis and management of chronic
low back pain in post lumbar surgery syndrome. Pain Physician. Mar-Apr 2009; 12(2): 361-78. PMID 19305485
4. Racz GB, Heavner JE, Trescot A. Percutaneous lysis of epidural adhesions--evidence for safety and efficacy. Pain
Pract. Jul-Aug 2008; 8(4): 277-86. PMID 18503627
5. Chopra P, Smith HS, Deer TR, et al. Role of adhesiolysis in the management of chronic spinal pain: a systematic
review of effectiveness and complications. Pain Physician. Jan 2005; 8(1): 87-100. PMID 16850047
6. Trescot AM, Chopra P, Abdi S, et al. Systematic review of effectiveness and complications of adhesiolysis in the
management of chronic spinal pain: an update. Pain Physician. Jan 2007; 10(1): 129-46. PMID 17256027

No review or update is scheduled on this Medical Policy as it is unlikely that further published literature would change the policy position. If there are questions about coverage of this service, please contact Blue Cross and Blue Shield of Kansas customer service, your professional or institutional relations representative, or submit a predetermination request.

7. Helm Ii S, Benyamin RM, Chopra P, et al. Percutaneous adhesiolysis in the management of chronic low back pain
in post lumbar surgery syndrome and spinal stenosis: a systematic review. Pain Physician. Jul-Aug 2012; 15(4):
E435-62. PMID 22828693
8. Gerdesmeyer L, Wagenpfeil S, Birkenmaier C, et al. Percutaneous epidural lysis of adhesions in chronic lumbar
radicular pain: a randomized, double-blind, placebo-controlled trial. Pain Physician. May-Jun 2013; 16(3): 185-96.
PMID 23703406
9. Manchikanti L, Cash KA, McManus CD, et al. The preliminary results of a comparative effectiveness evaluation of
adhesiolysis and caudal epidural injections in managing chronic low back pain secondary to spinal stenosis: a
randomized, equivalence controlled trial. Pain Physician. Nov-Dec 2009; 12(6): E341-54. PMID 19935991
10. Manchikanti L, Singh V, Cash KA, et al. A comparative effectiveness evaluation of percutaneous adhesiolysis and
epidural steroid injections in managing lumbar post-surgery syndrome: a randomized, equivalence controlled trial.
Pain Physician. Nov-Dec 2009; 12(6): E355-68. PMID 19935992
11. Manchikanti L, Singh V, Cash KA, et al. Assessment of effectiveness of percutaneous adhesiolysis and caudal
epidural injections in managing post lumbar surgery syndrome: 2-year follow-up of a randomized, controlled trial. J
Pain Res. 2012; 5: 597-608. PMID 23293536
12. Manchikanti L, Rivera JJ, Pampati V, et al. One day lumbar epidural adhesiolysis and hypertonic saline neurolysis
in treatment of chronic low back pain: a randomized, double-blind trial. Pain Physician. Apr 2004; 7(2): 177-86.
PMID 16868590
13. Manchikanti L, Pampati V, Fellows B, et al. Role of one day epidural adhesiolysis in management of chronic low
back pain: a randomized clinical trial. Pain Physician. Apr 2001; 4(2): 153-66. PMID 16902688
14. Wagner KJ, Sprenger T, Pecho C, et al. [Risks and complications of epidural neurolysis -- a review with case
report]. Anasthesiol Intensivmed Notfallmed Schmerzther. Apr 2006; 41(4): 213-22. PMID 16636945
15. Manchikanti L, Malla Y, Wargo BW, et al. A prospective evaluation of complications of 10,000 fluoroscopically
directed epidural injections. Pain Physician. Mar-Apr 2012; 15(2): 131-40. PMID 22430650
16. Manchikanti L, Rivera JJ, Pampati V, et al. Spinal endoscopic adhesiolysis in the management of chronic low back

No review or update is scheduled on this Medical Policy as it is unlikely that further published literature would change the policy position. If there are questions about coverage of this service, please contact Blue Cross and Blue Shield of Kansas customer service, your professional or institutional relations representative, or submit a predetermination request.

pain: a preliminary report of a randomized, double-blind trial. Pain Physician. Jul 2003; 6(3): 259-67. PMID
16880869
17. Donato AD, Fontana C, Pinto R, et al. The effectiveness of endoscopic epidurolysis in treatment of degenerative
chronic low back pain: a prospective analysis and follow-up at 48 months. Acta Neurochir Suppl. 2011; 108: 67-73.
PMID 21107940
18. Manchikanti L, Pampati V, Bakhit CE, et al. Non-endoscopic and endoscopic adhesiolysis in post-lumbar
laminectomy syndrome: a one-year outcome study and cost effectiveness analysis. Pain Physician. Oct 1999; 2(3):
52-8. PMID 16906216
19. Manchikanti L, Pakanati RR, Pampati V. The value and safety of epidural endoscopic adhesiolysis. Am J
Anesthesiol. 2000;27(5):275-279. PMID
20. 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. Apr 2013; 16(2 Suppl):
S49-283. PMID 23615883
21. Chou R, Loeser JD, Owens DK, et al. Interventional therapies, surgery, and interdisciplinary rehabilitation for low
back pain: an evidence-based clinical practice guideline from the American Pain Society. Spine (Phila Pa 1976).
May 01 2009; 34(10): 1066-77. PMID 19363457

Other References

1. Blue Cross and Blue Shield of Kansas, Anesthesia Liaison Committee, May 2011.