

<b>Subject: Cluneal Nerve Block For Treatment Of Low Back Pain</b>		<b>Original Effective Date:</b> 6/17/2020
<b>Policy Number: MCP-366</b>	<b>Revision Date(s):</b>	
<b>MCPC Approval Date: 6/17/2020</b>	<b>Review Date:</b>	

#### DISCLAIMER

*This Molina clinical policy is intended to facilitate the Utilization Management process. It expresses Molina's determination as to whether certain services or supplies are medically necessary, experimental, investigational, or cosmetic for purposes of determining appropriateness of payment. The conclusion that a particular service or supply is medically necessary does not constitute a representation or warranty that this service or supply is covered (i.e., will be paid for by Molina) for a particular member. The member's benefit plan determines coverage. Each benefit plan defines which services are covered, which are excluded, and which are subject to dollar caps or other limits. Members and their providers will need to consult the member's benefit plan to determine if there are any exclusion(s) or other benefit limitations applicable to this service or supply. If there is a discrepancy between this policy and a member's plan of benefits, the benefits plan will govern. In addition, coverage may be mandated by applicable legal requirements of a State, the Federal government or CMS for Medicare and Medicaid members. CMS's Coverage Database can be found on the CMS website. The coverage directive(s) and criteria from an existing National Coverage Determination (NCD) or Local Coverage Determination (LCD) will supersede the contents of this Molina clinical policy document and provide the directive for all Medicare members.*

#### DESCRIPTION OF PROCEDURE/SERVICE/PHARMACEUTICAL <sup>3</sup>

Cuneal nerve blocks are used as a proposed treatment for individuals with cluneal nerve entrapment syndromes causing pain in the low back and buttocks. The superior and the middle cluneal nerves (SCN and MCN) are cutaneous nerves that are sensory and dominate sensation in the lumbar area and the buttocks, and entrapment of these nerves around the iliac crest can elicit low back pain. The superior cluneal nerve (SCN) provides sensory innervation to the areas of the posterior iliac crest and upper buttocks. It originates from the upper 3 lumbar spinal nerves (L1–3), passes through the thoracolumbar fascia, and can be entrapped at the osteofibrous orifice where it penetrates the thoracolumbar fascia. The anatomic and functional bases for the development of SCN entrapment neuropathy are a rigid fascial edge and stretching of the gluteus maximus muscle and skin over a large area during flexion of the hip joint. If the nerve is chronically subjected to stretching, the resulting tissue irritation, edema, inflammatory cell infiltration, and scarring can lead to entrapment. Low-back pain caused by SCN entrapment is induced and exacerbated by movements such as rising, sitting, and rolling over, and by prolonged sitting, standing, or walking. Although the etiology of SCN entrapment neuropathy remains unclear, the symptoms are low-back pain (buttock pain) and paresthesia in the area of SCN innervations. Diagnosis of SCN entrapment neuropathy requires a positive result after a SCN block. Cluneal nerve blocks are generally performed under fluoroscopy where the physician injects one or more anesthetic agents and/or steroids near an affected cluneal nerve or branch to control pain and inflammation or to aid in diagnosis and treatment. The block is intended to interrupt the conduction of pain impulses and minimize the neuropathic pain and paresthesia associated with the SCN entrapment.

#### RECOMMENDATION

Cluneal nerve injections or blocks for the treatment of low back pain is considered experimental, investigational and unproven based on insufficient published evidence to assess the safety and/or impact on health outcomes of cluneal nerve blocks for the management of low back pain.

## SUMMARY OF MEDICAL EVIDENCE <sup>2-9</sup>

There is insufficient evidence pertaining to cluneal nerve blocks for the treatment of low back pain in the peer reviewed medical literature. Only one randomized controlled trial (RCT) (n=20) was located and the remaining are small prospective uncontrolled studies and case reports. There are no professional society guidelines that address cluneal nerve blocks as a treatment for low back pain.

The only RCT (Nielsen et al. 2019) describes a novel ultrasound-guided superior cluneal nerve block technique for application in the management of postoperative pain after hip surgery as well as other clinical uses such as chronic lower back pain. The study was carried out as two separate investigations. First, dissection of 12 cadaver sides was conducted in order to test a novel superior cluneal nerve block technique. Second, this nerve block technique was applied in a randomized trial of 20 healthy volunteers. Initially, the LFC, the subcostal and the iliohypogastric nerves were blocked bilaterally. A transversalis fascia plane (TFP) block technique was used to block the iliohypogastric nerve. Subsequently, randomized, blinded superior cluneal nerve blocks were conducted with active block on one side and placebo block contralaterally. The results showed that successful anesthesia after the superior cluneal nerve block was achieved in 18 of 20 active sides (90%). The area of anesthesia after all successful superior cluneal nerve blocks was adjacent and posterior to the area anesthetized by the combined TFP and subcostal nerve blocks. The addition of the superior cluneal nerve block significantly increased the anesthetic coverage of the various types of hip surgery incisions. The authors concluded that the novel ultrasound-guided nerve block technique reliably anesthetizes the superior cluneal nerves. It anesthetizes the skin posterior to the area innervated by the iliohypogastric and subcostal nerves. It improves the anesthetic coverage of incisions used for hip surgery. Among potential indications, this new nerve block may improve postoperative analgesia after hip surgery and may be useful as a diagnostic block for various chronic pain conditions. The authors indicated that clinical trials are mandated. Limitations of this study include very small sample size, healthy subjects without back pain were utilized and there was no randomization to any other low back pain treatment for comparison other than placebo. <sup>9</sup>

**CODING INFORMATION:** THE CODES LISTED IN THIS POLICY ARE FOR REFERENCE PURPOSES ONLY. LISTING OF A SERVICE OR DEVICE CODE IN THIS POLICY DOES NOT IMPLY THAT THE SERVICE DESCRIBED BY THIS CODE IS COVERED OR NON-COVERED. COVERAGE IS DETERMINED BY THE BENEFIT DOCUMENT. THIS LIST OF CODES MAY NOT BE ALL INCLUSIVE.

CPT	Description
64450	Injection(s), anesthetic agent(s) and/or steroid; other peripheral nerve or branch [when used for cluneal nerve block]

HCPCS	Description
	N/A

ICD-10	Description: [For dates of service on or after 10/01/2015]
	Any/All

## REFERENCES

### Government Agency

- Centers for Medicare & Medicaid Services (CMS). Medicare Coverage Database. National coverage determination (NCD) Search. Accessed at: <http://www.cms.gov/medicare-coverage-database/>

### Peer Reviewed Publications

2. Iwamoto N, Isu T, Kim K et al. Treatment of low back pain elicited by superior cluneal nerve entrapment neuropathy after lumbar fusion surgery. *Spine Surg Relat Res*. 2017 Dec 20;1(3):152-157.
3. Isu T, Kim K et al. Superior and Middle Cluneal Nerve Entrapment as a Cause of Low Back Pain. *Neurospine*. 2018 Mar;15(1):25-32. doi: 10.14245/ns.1836024.012. Epub 2018 Mar 28.
4. Kim K, Isu T, Matsumoto J et al. Low back pain due to middle cluneal nerve entrapment neuropathy. *Eur Spine J*. 2018 Jul;27(Suppl 3):309-313. doi: 10.1007/s00586-017-5208-2. Epub 2017 Jul 5.
5. Kim K, Isu T, Chiba Y, Iwamoto N et al. Treatment of low back pain in patients with vertebral compression fractures and superior cluneal nerve entrapment neuropathies. *Surg Neurol Int*. 2015;6(Suppl 24):S619-S621.
6. Kokubo R, Kim K, Isu T, Morimoto D et al. Superior cluneal nerve entrapment neuropathy and gluteus medius muscle pain: their effect on very old patients with low back pain. *World Neurosurg*. 2017;Feb;98:132-139.
7. Kuniya H, Aota Y, Kawai T et al. Prospective study of superior cluneal nerve disorder as a potential cause of low back pain and leg symptoms. *J Orthop Surg Res*. 2014 Dec 31;9:139.
8. Matsumoto J, Isu T, Kim K et al. Middle cluneal nerve entrapment mimics sacroiliac joint pain. *Acta Neurochir (Wien)*. 2019 Apr;161(4):657-661.
9. Nielsen TD, Moriggl B, Barckman J et al. Randomized trial of ultrasound-guided superior cluneal nerve block. *Reg Anesth Pain Med*. 2019;May 6.

### **Professional Society Guidelines**

10. N/A

### **Other Resources**

11. Hayes a TractManager Company. Winifred Hayes Inc. Lansdale, PA:
  - Evidence Analysis Research Brief. Cluneal Nerve Block For Treatment of Low Back Pain. March, 2020.
12. AMR Peer Review Network: Policy reviewed by practicing board certified MD in Physical Med & Rehab, Pain Management. April, 2020

### **Revision/Review History:**

6/17/20: New Policy