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## Notice of Independent Review Decision

**DATE OF REVIEW:** 7/7/09

**IRO CASE #:**

### **DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE**

Left Stellate Ganglion Block with fluoroscopy

### **A DESCRIPTION OF THE QUALIFICATIONS FOR EACH PHYSICIAN OR OTHER HEALTH CARE PROVIDER WHO REVIEWED THE DECISION**

Certified by the American Board of Anesthesiology – General, Pain Medicine -  
Subspecialty

### **REVIEW OUTCOME**

Upon independent review the reviewer finds that the previous adverse determination should be:

- Upheld (Agree)
- Overturned (Disagree)
- Partially Overturned (Agree in part/Disagree in part)

Injury date	Claim #	Review Type	ICD-9 DSMV	HCPCS/ NDC	Upheld/ Overturned
		Prospective	724.1	99144	Overturned
		Prospective	724.4	77002	Overturned
		Prospective	724.2	64510	Overturned

### **INFORMATION PROVIDED TO THE IRO FOR REVIEW**

Correspondence throughout appeal process, including first and second level decision letters, reviews, letters and requests for reconsideration, and request for review by an independent review organization.

Bone Scan of 6/20/08

MRI dated 7/3/07, 11/4/05

Electrodiagnostic Report and progress note dated 12/3/08

Physician notes from 11/1/06 to 3/23/09

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Official Disability Guidelines cited but not provided-Pain Chapter

**PATIENT CLINICAL HISTORY:**

The claimant is a male with a chief complaint of left upper extremity pain status post work related injury in xxxx. Triple phase bone scan of the affected extremity was abnormal with symmetrical flow and symmetrical uptake of the soft tissue. EMG of 12/3/08 revealed left radial sensory neuropathy with absent conduction of the radial nerve from the forearm to the thumb. Examination of 12/3/08 revealed weakness in his left hand and grip with thenar atrophy noted. Other physical examination findings noted in the progress notes include allodynia and hyperesthesia in the incisional area.

**ANALYSIS AND EXPLANATION OF THE DECISION INCLUDING CLINICAL BASIS, FINDINGS AND CONCLUSIONS USED TO SUPPORT THE DECISION**

Criteria used in analysis: ODG guidelines

*Stellate ganglion block (SGB) (Cervicothoracic sympathetic block):* There is limited evidence to support this procedure, with most studies reported being case studies. The one prospective double-blind study (of CRPS) was limited to 4 subjects. *Anatomy:* Sympathetic flow to the head, neck and most of the upper extremities is derived from the upper five to seven thoracic spinal segments. The stellate ganglion is formed by a fusion of the inferior and first thoracic sympathetic ganglia in 80% of patients. In the other 20%, the first thoracic ganglion is labeled the stellate ganglion. The upper extremity may also be innervated by branches for Kuntz's nerves, which may explain inadequate relief of sympathetic related pain. *Proposed Indications:* This block is proposed for the diagnosis and treatment of sympathetic pain involving the face, head, neck, and upper extremities. Pain: CRPS; Herpes Zoster and post-herpetic neuralgia; Frostbite. Circulatory insufficiency: Traumatic/embolic occlusion; Post-reimplantation; Post-embolic vasospasm; Raynaud's disease; Vasculitis; Scleroderma. *Testing for an adequate block:* Adequacy of a sympathetic block should be recorded. A Horner's sign (ipsilateral ptosis, miosis, anhydrosis conjunctival engorgement, and warmth of the face) indicates a sympathetic block of the head and face. It does not indicate a sympathetic block of the upper extremity. The latter can be measured by surface temperature difference (an increase in temperature on the side of the block). Somatic block of the arm should also be ruled out (the incidence of brachial plexus nerve block is ~ 10%). Complete sympathetic blockade can be measured with the addition of tests of abolition of sweating and of the sympathogalvanic response. Documentation of motor and/or sensory block should occur. *Complications:* Incidental recurrent laryngeal nerve block or superior laryngeal nerve block, resulting in hoarseness and subjective shortness of breathe; Brachial plexus block; Intravascular injection; Intrathecal, subdural or epidural injection; Puncture of the pleura with pneumothorax; Bleeding and hematoma. There appears to be a positive correlation between efficacy and how soon therapy is initiated (as studied in patients with CRPS of the hand). Duration of symptoms greater than 16 weeks before the initial SGB and/or a decrease in skin perfusion of 22% between the normal and affected hands adversely affected the efficacy of SGB therapy. ([Ackerman, 2006](#)) ([Sayson, 2004](#)) ([Grabow, 2005](#)) ([Colorado, 2006](#)) ([Price, 1998](#)) ([Day, 2008](#)) ([Nader, 2005](#)) See also [Stellate ganglion block](#) Recommended only as indicated below, for a limited role, primarily for diagnosis of sympathetically mediated pain and as an adjunct to facilitate physical therapy. Detailed information about stellate ganglion blocks, thoracic sympathetic blocks, and lumbar sympathetic blocks is found in [Regional sympathetic blocks](#). Recommendations for the use of sympathetic blocks are listed below. They are recommended for a limited role, primarily for diagnosis of sympathetically mediated pain and as an adjunct to facilitate physical therapy. It should be noted that sympathetic blocks are not specific for CRPS. See [Sympathetically maintained pain](#) (SMP). Repeated blocks are only recommended if continued improvement is observed. Systematic reviews reveal a paucity of published evidence supporting the use of local anesthetic

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sympathetic blocks for the treatment of CRPS and usefulness remains controversial. Less than 1/3 of patients with CRPS are likely to respond to sympathetic blockade. No controlled trials have shown any significant benefit from sympathetic blockade. ([Varrassi, 2006](#)) ([Cepeda, 2005](#)) ([Hartrick, 2004](#)) ([Grabow, 2005](#)) ([Cepeda, 2002](#)) ([Forouzanfar, 2002](#)) ([Sharma, 2006](#)) *Predictors of poor response*: Long duration of symptoms prior to intervention; Elevated anxiety levels; Poor coping skills; Litigation. ([Hartrick, 2004](#)) ([Nelson, 2006](#))

**Recommendations (based on consensus guidelines) for use of sympathetic blocks:** (1) In the initial diagnostic phase if less than 50% improvement is noted for the duration of the local anesthetic, no further blocks are recommended. (2) In the initial therapeutic phase, maximum sustained relief is generally obtained after 3 to 6 blocks. These blocks are generally given in fairly quick succession in the first two weeks of treatment with tapering to once a week. Continuing treatment longer than 2 to 3 weeks is unusual. (3) In the therapeutic phase repeat blocks should only be undertaken if there is evidence of increased range of motion, pain and medication use reduction and increased tolerance of activity and touch (decreased allodynia) in physical therapy/occupational therapy. (4) There should be evidence that physical or occupational therapy is incorporated with the duration of symptom relief of the block during the therapeutic phase. (5) In acute exacerbations, 1 to 3 blocks may be required for treatment. (5) A formal test of the block should be documented (preferably using skin temperature). (6) Documentation of motor and/or sensory block should occur. This is particularly important in the diagnostic phase to avoid overestimation of the sympathetic component of pain. ([Burton, 2006](#)) ([Stanton-Hicks, 2004](#)) ([Stanton-Hicks, 2006](#)) ([International Research Foundation for RSD/CRPS, 2003](#)) ([Colorado, 2006](#)) ([Washington, 2002](#)) ([Rho, 2002](#))

According to the Reviewer, Complex Regional Pain Syndrome (CRPS) I applies to a variety of seemingly unrelated disorders having similar clinical features and manifesting the same fundamental disturbed physiology; CRPS II applies to similar unrelated disorders, in which there is a partial nerve injury to an identifiable nerve. Whether the symptoms are due to suspected CRPS I or II, a diagnostic stellate ganglion block should be performed to identify a sympathetically mediated component to the patient's symptoms. The classic clinical findings of CRPS include autonomic dysregulation, sensory abnormalities, motor dysfunction, reactive psychologic disturbances and trophic changes. According to the Reviewer, this patient has all the classical signs of CRPS, based on the medical records submitted for review.

In the Reviewer's opinion, based on the clinical information submitted for this review and using evidence-based, peer-reviewed guidelines, referenced above, the request for a left stellate ganglion block is certified and should receive authorization.

#### References:

Raj, PP: Pain Medicine: A Comprehensive Review, ed 2. St Louis, Mosby, 2003.

**A DESCRIPTION AND THE SOURCE OF THE SCREENING CRITERIA OR  
OTHER CLINICAL BASIS USED TO MAKE THE DECISION:**

- ACOEM- AMERICAN COLLEGE OF OCCUPATIONAL & ENVIRONMENTAL MEDICINE UM KNOWLEDGEBASE
- AHCPR- AGENCY FOR HEALTHCARE RESEARCH & QUALITY GUIDELINES
- DWC- DIVISION OF WORKERS COMPENSATION POLICIES OR GUIDELINES
- EUROPEAN GUIDELINES FOR MANAGEMENT OF CHRONIC LOW BACK PAIN
- INTERQUAL CRITERIA
- MEDICAL JUDGEMENT, CLINICAL EXPERIENCE AND EXPERTISE IN ACCORDANCE WITH ACCEPTED MEDICAL STANDARDS
- MERCY CENTER CONSENSUS CONFERENCE GUIDELINES
- MILLIMAN CARE GUIDELINES
- ODG- OFFICIAL DISABILITY GUIDELINES & TREATMENT GUIDELINES
- PRESSLEY REED, THE MEDICAL DISABILITY ADVISOR
- TEXAS GUIDELINES FOR CHIROPRACTIC QUALITY ASSURANCE & PRACTICE PARAMETERS
- TEXAS TACADA GUIDELINES
- TMF SCREENING CRITERIA MANUAL
- PEER REVIEWED NATIONALLY ACCEPTED MEDICAL LITERATURE (PROVIDE A DESCRIPTION)
- OTHER EVIDENCE BASED, SCIENTIFICALLY VALID, OUTCOME FOCUSED GUIDELINES (PROVIDE A DESCRIPTION)