

# CASEREVIEW

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Notice of Independent Review Decision

[Date notice sent to all parties]: July 24, 2014

**IRO CASE #:**

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

OP Left Stellate Ganglion Block 64510 (PNR 76942 99144)

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

This physician is a Board Certified Anesthesiologist with over 6 years of experience, including Pain Management.

**REVIEW OUTCOME:**

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

Upheld (Agree)

Provide a description of the review outcome that clearly states whether medical necessity exists for each of the health care services in dispute.

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

04/27/12: H&P  
04/30/12: Progress Note  
05/03/12: Progress Note  
05/14/12: Progress Note  
05/18/12: Progress Note  
06/11/12: Progress Note  
06/21/12: Progress Note  
07/09/12: Progress Note  
07/16/12: Progress Note  
07/25/12: Progress Note  
09/07/12: MRI Left Hand  
09/25/12: Progress Note  
10/09/12: Evaluation  
10/24/12: Follow-up

11/14/12: Follow-up  
12/05/12: Follow-up  
01/02/13: Follow-up  
02/13/13: Follow-up  
04/17/13: Evaluation  
06/10/13: History and Physical  
06/11/13: Follow-up  
07/22/13: Procedure Note  
08/27/13: Progress Note  
10/08/13: History and Physical  
10/14/13: Procedure Note  
11/19/13: Progress Note  
01/30/14: Progress Note  
01/31/14: Procedure Note  
04/01/14: Progress Note  
04/24/14: UR performed  
05/06/14: Letter of Medical Necessity  
06/11/14: UR performed

**PATIENT CLINICAL HISTORY [SUMMARY]:**

The claimant is a female who was injured on xx/xx/xx. It was also noted that she had an injury on xx/xx/xx when she was walking and slipped and fell. She injured her right wrist and hip at that time.

On September 7, 2012, MRI of the Left Hand, Impression: 1. There is superficial soft tissue skin laceration injury to the volar pads of the distal third and fourth fingers. There appears to be some scar formation in the skin. 2. There is no ligamentous or osseous injury demonstrated. 3. No evidence of abscess. 4. This exam is otherwise grossly unremarkable within the limits of a noncontrast exam.

On October 9, 2011, the claimant was evaluated. It was noted her injuries were originally washed and sutured. She had complaints of stiffness and pain. On physical examination, on the long finger just proximal to the DIP all the way up to the tip palmarly, she had the whole pad lifted off with an eschar, little bit of puffiness from the DIP up to the tip on the ring, similar palmar pad laceration. It looked like an eschar covering the finger. It easily lifted off underneath nice healthy pink skin. On the tip of the ring finger, she just had a 2 mm wide x 4 mm wide area of open wound that should heal once the eschar peeled away. On the tip of the long, she had a 5 x 5 mm area of eschar still left that was still granulating and re-epithelizing underneath it, but no sign of any infection. Once the eschar resolved, she could flex the DIP joint although little limited at Flexion, PIP and MCP. Tendon was intact. She could extend the fingers. Two-point discrimination was still intact palmarly over the finger tip. X-rays were grossly negative. Diagnosis: Open wound of fingers, complicated. Recommendations: Aggressive hand therapy.

On December 5, 2012, the claimant presented for follow-up. It was noted the recommended aggressive therapy had not been approved. On physical

examination she was very stiff and could not make a fist. She could extend fully. The lacerations had healed. There were no signs of any RSD. Pinwheel and pinprick were only a little diminished on the palmar pads, but she could feel it. No evidence of any complete nerve transactions. Her FDP and FDS functioned, but she was stiff. Recommendations: Aggressive therapy for tendon glides. Passive active range of motion and desensitization.

On January 2, 2013, the claimant presented for follow-up. It was noted she had edema of the tissue. Due to some venous congestion, the laceration crossed her DIP joint. She had a mild chronic regional pain syndrome, not full blown RSD at that point. Aggressive therapy for desensitizing and ROM was still recommended. She was given Naurogel to help with the nerve sensitivity.

On February 13, 2013, the claimant presented with lacerated fingers with nerve damage and mild RSD. On physical examination she showed tightness around the skin, hypersensitivity. She could flex about 20 degrees of each DIP and about 80 degrees at each PIP. Collateral ligaments were stable. Pinwheel and pinprick were intact, although little hypersensitive. Diagnosis: Open wound of fingers complicated and Reflex sympathetic dystrophy of the upper limb. Recommendations: Stress and load therapy, tendon glides, anti-inflammatory gel with gabapentin nerve gel, therapy on her own at home with the squeeze ball and stressing loads.

On April 17, 2013, the claimant presented with pain in the left ring and long finger and chronic intractable pain. She reported allodynia and hyperesthesia and that her fingers do swell at times and that she was experiencing numbness and tingling radiating into her hand. Her pain was rated at a 5/10. She described the pain as pulsating, burning, numbness, tingling type of ache. She reported she must keep her left hand elevated at all times to decrease symptoms. The effects of the pain were reported to be a decrease in quality of sleep, decreased physical activity, decrease function and quality of life. She was unable to perform any of her activities of daily living without great effort. On physical examination she had limited range of motion to left ring and long finger due to pain, mild swelling was noted. Hyperesthesia, allodynia was noted. She did report vasomotor and pseudomotor changes consisted with CRPS. Plan: Left stellate ganglion block and active rehabilitation along with the injection therapy. She was also prescribed Lyrica 50 mg and was told to continue Tramadol and NeuroGel as prescribed.

On July 22, 2013, Procedure Note. Post-Op Diagnosis: Left hand pain, Left hand burning sensation, Left arm pain, Left arm burning sensation, Complex regional pain syndrome (Type I) left upper extremity. Procedure: Left Stellate Ganglion Sympathetic Block with US guidance. The patient tolerated the procedure well. After the procedure, the patient experienced ptosis, miosis and anhidrosis (Horner's syndrome).

On August 27, 2013, the claimant presented in follow-up and reported 50% improvement in her pain score, activities of daily living, in her ability to sleep and reduction in her use of analgesic medications. She currently rated her pain as

8/10 in severity. Plan: Therapeutic Left Stellate Ganglion Injection, Neurogel, Lyrica and Tramadol. He would also like her to undergo active rehabilitation.

On October 14, 2013, Procedure Note. Post-Op Diagnosis: Left hand pain, Left hand burning sensation, Left arm pain, Left arm burning sensation, Complex regional pain syndrome (Type I) left upper extremity. Procedure: Left Stellate Ganglion Sympathetic Block under ultrasound guidance. The patient tolerated the procedure well. After the procedure, the patient experienced ptosis, miosis and anhidrosis (Horner's syndrome).

On November 19, 2013, the claimant presented in follow-up and reported 50% improvement in her pain score and reduction in her use of analgesic medications. She reported 30% improvement in her activities of daily living and 0% improvement in her ability to sleep. She currently rated her pain as 8/10 in severity. Plan: Third Therapeutic Left Stellate Ganglion Injection and continue medications. He would also like her to undergo active rehabilitation.

On January 31, 2014, Procedure Note. Post-Op Diagnosis: Left hand pain, Left hand burning sensation, Left arm pain, Left arm burning sensation, Complex regional pain syndrome (Type I) left upper extremity. Procedure: Left Stellate Ganglion Sympathetic Block under ultrasound guidance. The patient tolerated the procedure well. After the procedure, the patient experienced ptosis, miosis and anhidrosis (Horner's syndrome).

On April 1, 2014, the claimant presented in follow-up and reported 70% improvement in her pain score and 50% reduction in her use of analgesic medications. She reported 40% improvement in her activities of daily living and 0% improvement in her ability to sleep. She currently rated her pain as 8/10 in severity. She did report that the pain was not as constant as before the injections. Her pain continued to improve with the blocks, her ROM and ADLs also improved and sleep patterns appeared to have worsen lately. A supplement for pain relief and melatonin for sleep was suggested. On physical examination there was keloid formation along the edges of the long and ring fingertips from the injury. ROM was decreased secondary to pain. There was weakness secondary to pain, 4/5. Allodynia and hyperesthesia was noted in long and ring fingertips. Discoloration of the skin was mottled. Plan: Fourth Therapeutic Left Stellate Ganglion Injection, Myofascial FlurGabaOrphTramBupivBac and Methylcobalmin/Pyridoxal. He would also like her to undergo active rehabilitation.

On April 24, 2014, UR. Rationale for Denial: Treatments rendered to date include stellate ganglion blocks, medications, work/activity restrictions, light duty, therapy and laceration repair. Diagnostic examinations performed include x-ray studies. Evidence that the patient had an adequate response to a diagnostic block prior to the therapeutic stellate ganglion blocks was not presented (including sustained increase in skin temperature [ $< 1.5$  degree C and/or an increase in temperature to  $> 34$  degrees C] without evidence of thermal or tactile sensory block). In addition, per referenced guidelines, in the initial therapeutic phase, maximum sustained relief is generally obtained after three to six sympathetic 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 two to three weeks is unusual. It is unclear why the prior stellate ganglion blocks were performed with a three month interval. Moreover, evidence that Physical or Occupation Therapy was incorporated with the duration of symptom relief of the block during the therapeutic phase was not presented as well. Based on these grounds, the medical necessity of the requested left stellate ganglion block (fourth block) is not established.

On June 11, 2014, UR. Rationale for Denial: The previous non-certification is supported. The official Disability Guidelines state that additional therapeutic stellate ganglion blocks should be performed when a successful block has been documented with sustained skin temperature increase of greater than or equal to 1.5 degrees Centigrade without evidence of thermal or tactile sensory block. There should also be documentation of motor and/or sensory block. An operative note for the block performed in July 2013 was provided for review and did not document an increase in skin temperature or motor or sensory block. It was also noted that a Horner's sign should be documented for upper extremity blocks and this was not noted. It was also noted that diagnostic criteria of complex regional pain syndrome or reflex sympathetic dystrophy should be noted. The most recent evaluation provided for review documented findings consistent with allodynia and hyperesthesia as well as vasomotor changes; however, documentation of trophic changes were not noted. Based on these factors, the appeal request for an outpatient left stellate ganglion block is not certified.

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

Previous non-certification is supported. Per ODG, justification for additional therapeutic stellate ganglion blocks should be performed when a successful block has been performed. Successful blocks must be documented with sustained skin temperature increase of greater than or equal to 1.5 degrees Centigrade without evidence of thermal or tactile sensory block and also documentation of motor and/or sensory block. Documentation of the block performed 07/2013 did not document an increase in skin temperature or motor or sensory block. There also must be documentation of RSD or CRPS. Most recent documentation lacks trophic changes. Therefore, this request for OP Left Stellate Ganglion Block 64510 (PNR 76942 99144) is non-certified.

PER ODG:

CRPS, sympathetic blocks (therapeutic)	Recommend local anesthetic sympathetic blocks for limited, select cases, as indicated below. Not recommend IV regional anesthesia blocks. <b>Local anesthetic sympathetic blocks:</b> Recommended for limited, select cases, primarily for diagnosis of sympathetically mediated pain and therapeutically as an adjunct to facilitate physical therapy/ <a href="#">functional restoration</a> . When used for therapeutic purposes the procedure is not considered a stand-alone treatment. The role of sympathetic blocks for treatment of CRPS is largely empirical (with a general lack of evidence-based research for support) but can be clinically important in individual cases in which the procedure
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ameliorates pain and improves function, allowing for a less painful “window of opportunity” for rehabilitation techniques. (Harden, 2013) Use of sympathetic blocks should be balanced against the side effect ratio and evidence of limited response to treatment. See [CRPS, diagnostic tests](#).

**IV regional anesthesia:** Not recommended due to lack of evidence for use. This procedure is a technique that allows placement of medications directly in the effected extremity but current literature indicates efficacy is poor. (Harden, 2013) There is no role for IV diagnostic blocks with phentolamine or IVRA with guanethidine. Other procedures include IV regional blocks with lidocaine, lidocaine-methyl-prednisolone, droperidol, ketanserin, atropine, bretylium clonidine, and reserpine. If used, there must be evidence that current CRPS criteria have been met and all other diagnoses have been ruled out. Evidence of sympathetically mediated pain should be provided (see the recommendations below). The reason for the necessity of this procedure over-and-above a standard sympathetic block should also be provided. (Perez, 2010) (Harden, 2013) (Tran, 2010) See also [CRPS, treatment](#).

#### **General information on sympathetic procedures**

**Current literature:** A recent study indicated that there was low quality literature to support this procedure (some evidence of effect, but conclusions were limited by study design, divergent CRPS diagnostic criteria, differing injection techniques and lack of consistent criteria for positive response). Results were inconsistent and/or extrapolation of questionable reliability with inconclusive evidence to recommend for or against the intervention. (Dworkin, 2013) Other studies have found evidence non-conclusive for this procedure or that low-quality evidence showed this procedure was not effective. (O’Connell, 2013) (Tran, 2010) The blocks are thought to be most beneficial when used early in the disease as an adjunct to rehabilitation with physical or occupational therapy. No controlled trials have shown any significant benefit from sympathetic blockade. (Dworkin 2013) (O’Connell, 2013) (Tran, 2010) (van Eijs, 2012) (Perez, 2010) (van Eijs, 2011) (Nelson, 2006) (Varrassi, 2006) (Cepeda, 2005) (Hartrick, 2004) (Grabow, 2005) (Cepeda, 2002) (Forouzanfar, 2002) (Sharma, 2006)

**Historical basis for use:** The use of sympathetic blocks for diagnostic and therapeutic purposes in the management of CRPS is based on a previous hypothesis concerning the involvement of the sympathetic nervous system in the pathophysiological mechanism of the disease. (van Eijs, 2012) It has been determined that a sympathetic mechanism is only present in a small subset of patients, and less than 1/3 of patients with CRPS are likely to respond to sympathetic blockade. See [Sympathetically maintained pain](#) (SMP).

**Predictors of response:** Researchers have suggested the following are predictors of poor response to blocks: (1) Long duration of symptoms prior to intervention; (2) Elevated anxiety levels; (3) Poor coping skills; (4) Litigation; (5) Allodynia and hypoesthesia. At this time there are no symptoms or signs that predict treatment success. (Hartrick, 2004) (Nelson, 2006) (van Eijs, 2012)

**Interpretation of block results:** There is a lack of consensus in terms of defining a successful sympathetic block. Based on consensus, a current suggestion of successful block is one that demonstrates an adequate and sustained increase in skin temperature ( $\geq 1.5^{\circ}\text{C}$  and/or an increase in temperature to  $> 34^{\circ}\text{C}$ ) without evidence of thermal or tactile sensory block. A Horner’s sign is should be documented for upper extremity blocks.

#### **Recommendations (based on consensus guidelines) for use of sympathetic blocks (diagnostic block recommendations are included here, as well as in CRPS, diagnostic tests):**

- (1) There should be evidence that all other diagnoses have been ruled out before consideration of use.
- (2) There should be evidence that the Budapest (Harden) criteria have been evaluated for and fulfilled.
- (3) If a sympathetic block is utilized for diagnosis, there should be evidence that this block fulfills criteria for success including that skin temperature after the block shows sustained increase ( $\geq 1.5^{\circ}\text{C}$  and/or an increase in temperature to  $> 34^{\circ}\text{C}$ )

without evidence of thermal or tactile sensory block. 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. A Horner's sign should be documented for upper extremity blocks. The use of sedation with the block can influence results, and this should be documented if utilized. ([Krumova, 2011](#))

([Schurmann, 2001](#))

(4) Therapeutic use of sympathetic blocks is only recommended in cases that have positive response to diagnostic blocks and diagnostic criteria are fulfilled (See #1-3). These blocks are only recommended if there is evidence of lack of response to conservative treatment including pharmacologic therapy and physical rehabilitation.

(5) 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.

(6) 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) is documented to permit participation in physical therapy/ occupational therapy. Sympathetic blocks are not a stand-alone treatment.

(7) There should be evidence that physical or occupational therapy is incorporated with the duration of symptom relief of the block during the therapeutic phase.

(8) In acute exacerbations of patients who have documented evidence of sympathetically mediated pain (see #1-3), 1 to 3 blocks may be required for treatment.

(9) A formal test of the therapeutic blocks should be documented (preferably using skin temperature).

([Burton, 2006](#)) ([Stanton-Hicks, 2004](#)) ([Stanton-Hicks, 2006](#)) ([International Research Foundation for RSD/CRPS, 2003](#)) ([Colorado, 2006](#)) ([Washington, 2002](#)) ([Rho, 2002](#)) ([Perez, 2010](#)) ([van Eijs, 2011](#))

**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)**