



CLINICAL GUIDELINES

CMM-209: Regional Sympathetic Blocks

Version 1.0
Effective February 14, 2020



CMM-209: Regional Sympathetic Blocks

CMM-209.1: Definitions	3
CMM-209.2: General Guidelines	4
CMM-209.3: Indications	4
CMM 209.4: Non-Indications	5
CMM-209.5: Procedure (CPT®) Codes	5
CMM-209.6: References	5

CMM-209.1: Definitions

- **Regional sympathetic blocks** (i.e., Stellate Ganglion Blocks and Lumbar Sympathetic Blocks) refer to the injection of local anesthetic along the sympathetic ganglia of the under fluoroscopy to reduce sympathetic nervous system activity. A diagnostic regional sympathetic block is considered positive when there is significant reduction in pain and improvement in function for the duration of the local anesthetic used.
- **Complex Regional Pain Syndrome (CRPS)** is defined by the International Association for the Study of Pain (IASP) as a variety of painful conditions following injury which appear regionally having a distal predominance of abnormal findings, exceeding in both magnitude and duration the expected clinical course of the inciting event and often resulting in significant impairment of motor function, and showing variable progression over time. In addition to injury, CRPS can also occur as a result of various medical disorders or illnesses. The diagnostic criteria for CRPS are as follows:
 - ◆ Continuing pain that is disproportionate to any inciting event
 - ◆ Must report at least one (1) of the symptoms in the following categories:
 - Sensory: reports of hyperesthesia
 - Vasomotor: reports of temperature asymmetry, skin color changes, and/or skin color asymmetry
 - Sudomotor/edema: reports of edema, sweating changes, and/or sweating asymmetry
 - Motor/trophic: reports of decreased range of motion, motor dysfunction (weakness, tremor, dystonia), and/or trophic changes (hair, nail, skin).
 - ◆ Must display at least one (1) of the signs on physical examination in **TWO or MORE** the following categories:
 - Sensory: evidence of hyperalgesia (to pinprick) and/or allodynia (to light touch)
 - Vasomotor: evidence of temperature asymmetry, skin color changes, and/or asymmetry
 - Sudomotor/edema: evidence of edema, sweating changes, and/or sweating asymmetry
 - Motor/trophic: evidence of decreased range of motion, motor dysfunction (weakness, tremor, dystonia). and/or trophic changes (hair, nail, skin).

CMM-209.2: General Guidelines

- The determination of medical necessity for the performance of regional sympathetic blocks is always made on a case-by-case basis.
- **Please note:** this guideline does not apply to injections/blocks of other autonomic nerves (e.g. sphenopalatine ganglion, carotid sinus, superior hypogastric plexus, celiac plexus, Gasserian ganglion [trigeminal nerve], splanchnic nerve, Ganglion of Impar, rami communicans).
- Regional sympathetic blocks should be performed using fluoroscopy.
- Due to insufficient evidence that regional sympathetic blocks (Stellate Ganglion Blocks and Lumbar Sympathetic Chain Blocks) performed as an isolated treatment alter the long term outcome of CRPS, all regional sympathetic blocks in recalcitrant cases of CRPS should be performed with the intent of facilitating involvement and advancement in an active rehabilitation/functional restoration program.

CMM-209.3: Indications

- The performance of an initial diagnostic regional sympathetic block is considered **medically necessary** to establish the presence or absence of sympathetically mediated complex regional pain syndrome. A positive response is defined as at least 50% reduction in pain and improvement in function for the duration of the local anesthetic used.
- Following a successful initial diagnostic block, three (3) additional regional sympathetic blocks, performed within the first two (2) weeks of the initial block, may be considered **medically necessary** to diagnose the individual's pain and obtain a therapeutic response.
- Additional therapeutic regional sympathetic blocks are considered **medically necessary** when provided as part of a comprehensive pain management program and **ALL** of the following criteria are met:
 - ◆ Decreased use of pain medication
 - ◆ Increased functional ability (e.g., increased range of motion, strength, and use of the extremity in activities of daily living)
 - ◆ Increased tolerance to touch (e.g., decreased allodynia)
 - ◆ Ongoing participation in an active rehabilitation program
 - ◆ Performed at a frequency of no more than one time per week
 - ◆ No more than six (6) total blocks

CMM 209.4: Non-Indications

Regional sympathetic blocks are considered **not medically necessary** for each of the following:

- When the individual is not capable of participating or is not involved in an ongoing active rehabilitation program
- Without the use of fluoroscopic guidance
- No significant reduction in pain and no improvement in function for the duration of the local anesthetic following the diagnostic block
- A repeat therapeutic block when there is no decrease in use of pain medication, increase in functional ability, and increase of tolerance to touch

CMM-209.5: Procedure (CPT®) Codes

This guideline relates to the CPT® code set below. Codes are displayed for informational purposes only. Any given code's inclusion on this list does not necessarily indicate prior authorization is required.	
CPT®	Code Description/Definition
64510	Injection, anesthetic agent; stellate ganglion(cervical sympathetic)
64520	Injection, anesthetic agent; lumbar or thoracic(paravertebral sympathetic)
This list may not be all inclusive and is not intended to be used for coding/billing purposes. The final determination of reimbursement for services is the decision of the health plan and is based on the individual's policy or benefit entitlement structure as well as claims processing rules.	

CMM-209.6: References

1. Ackerman W. Zhang J. Efficacy of stellate ganglion blockade for the management of type 1 complex regional pain syndrome. Southern Medical Journal. 2006;99(10):1084-1088.
2. American College of Occupational and Environmental Medicine. Occupational Medicine Practice Guideline, 2nd Ed. 2008.
3. American Medical Association. Current Procedural Terminology – Professional Edition.
4. Cepeda M, Carr D, Lau J. Local anesthetic sympathetic blockade for complex regional pain syndrome. Cochrane Database Syst Rev. 2005 Oct 19;4:CD004598.
5. Cepeda M, Lau J, Carr D. Defining the therapeutic role of local anesthetic sympathetic blockade in complex regional pain syndrome: a narrative and systematic review. Clin J Pain. 2002;18:216-233.
6. Chou R, Huffman L. American Pain Society. American College of Physicians. Medications for acute and chronic low back pain: a review of the evidence for an American Pain Society/American College of Physicians clinical practice guideline. Annals of Internal Medicine. 2007;147(7):505-14.
7. Chou R, Huffman LH American Pain Society. American College of Physicians. Nonpharmacologic therapies for acute and chronic low back pain: a review of the evidence for an American Pain Society/American College of Physicians clinical practice guideline. Annals of Internal Medicine.2007;147(7):492-504.
8. Chou R, Qaseem A, Snow V, et al. Clinical Efficacy Assessment Subcommittee of the American College of Physicians. American College of Physicians. American Pain Society Low Back Pain Guidelines Panel. Diagnosis and treatment of low back pain: a joint clinical practice guideline from the

American College of Physicians and the American Pain Society. *Annals of Internal Medicine*. 2007;147(7):478-491.

9. Chou R. Using evidence in pain practice: Part I: Assessing quality of systematic reviews and clinical practice guidelines. *Pain Medicine*. 2008; 9(5):518-530.
10. Forouzanfar T, Köke A, van Kleef M, Weber W. Treatment of complex regional pain syndrome type I. *Eur J Pain*. 2002;6:105-122.
11. Furlan A, Mailis A, Papagapiou M. Are we paying a high price for surgical sympathectomy? A systemic literature review of late complications. *J Pain*. 2000;1:245-257.
12. Galer B, Bruehl S, Harden R. IASP diagnostic criteria for complex regional pain syndrome: a preliminary empirical validation study. *Clin J Pain*. 1998;14:48-54.
13. Harden R, Bruehl S, Galer B, et al. Complex regional pain syndrome: are the IASP diagnostic criteria valid and sufficiently comprehensive? *Pain* 1999;83:211-219.
14. Harden R, Bruehl S, Perez R, et al. Validation of proposed diagnostic criteria (the "Budapest criteria") for complex regional pain syndrome. *PAIN* 2010;150:268 – 74.
15. Harden R, Bruehl S, Stanton-Hicks M, Wilson P. Proposed new diagnostic criteria for complex regional pain syndrome. *Pain Med*. 2007;8(4):326-331.
16. Hartrick C, Kovan J, Naismith P. Outcome prediction following sympathetic block for complex regional pain syndrome. *Pain Pract*. 2004;4:222-228.
17. Harvey AM. Classification of chronic pain – descriptions of chronic pain syndromes and definitions of pain terms. *Clin J Pain* 1995; 11(2); 179.
18. Janig W, Baron R. Complex regional pain syndrome: mystery explained? *Lancet Neurol*. 2003;2:687-697.
19. Leis S, Weber M, Schmelz M, Birklein F. Facilitated neurogenic inflammation in unaffected limbs of patients with complex regional pain syndrome. *Neurosci Lett*. 2004;359:163-166.
20. Ozturk E, Mohur H, Arslan N, et al. Quantitative three-phase bone scintigraphy in the evaluation of intravenous regional blockade treatment in patients with stage-I reflex sympathetic dystrophy of upper extremity. *Annals of Nuclear Medicine*. 2004;18(8):653-658.
21. Paraskevas K, Michaloglou A, Briana D, Samara M. Treatment of complex regional pain syndrome type I of the hand with a series of intravenous regional sympathetic blocks with guanethidine and lidocaine. *Clin Rheumatol*. 2005;7:1-7.
22. Perez R, Kwakkel G, Zuurmond W, de Lange J. Treatment of reflex sympathetic dystrophy (CRPS type 1): a research synthesis of 21 randomized clinical trials. *J Pain Sympt Management*. 2001;21:511-526.
23. Schurmann M, Gradl G, Wizgal I, et al. Clinical and physiologic evaluation of stellate ganglion blockade for complex regional pain syndrome type I. *Clin J Pain*. 2001;17:94-100.
24. Severens J, Oerlemans H, Weegels A, et al. Cost-effectiveness analysis of adjuvant physical or occupational therapy for patients with reflex sympathetic dystrophy. *Arch Phys Med Rehabil*. 1999;80:1038-1043
25. Sharma A, Williams K, Raja S. Advances in treatment of complex regional pain syndrome: recent insights on a perplexing disease. *Curr Opin Anaesthesiol*. 2006;19:566-72.
26. Stanton-Hicks M. A report on the 2nd IASP Research Symposium, Cardiff, Wales. Complex regional pain syndrome: current research on mechanisms and diagnosis. In: International Association for the Study of Pain. Special Interest Group on Pain and the Sympathetic Nervous System. 2000; 1– 2.
27. Stanton-Hicks M. In: Wakefield CA, Bajwa JH. *Principles and Practice of Pain Medicine*. 2nd ed. 2004.
28. Stanton-Hicks M, Baron R, et al. Consensus report: complex regional pain syndromes: guidelines for therapy. *Clin J Pain*. 1998;14:155-166
29. Stanton-Hicks M, Burton A, Bruehl S, et al. An updated interdisciplinary clinical pathway for CRPS: report of an expert panel. *Pain Practice*. 2005;84(3):S4-S16.
30. Stanton-Hicks M. Complex regional pain syndrome: manifestations and the role of neurostimulation in its management. *J Pain Symptom Manage*. 2006;(4 Suppl):S20-S4.
31. Suresh S, Wheeler M, Patel A. Case series: IV regional anesthesia with ketorolac and lidocaine: is it effective for the management of complex regional pain syndrome 1 in children and adolescents? *Anesth Analg*. 2003;96:694-695.
32. Turner J, Loeser J, Deyo R, Sanders S. Spinal cord stimulation for patients with failed back surgery syndrome or complex regional pain syndrome: a systematic review of effectiveness and complications. *Pain*. 2004;108:137-147.

33. Varrassi G, Paladini A, Marinangeli F, Racz G. Neural modulation by blocks and infusions. *Pain Pract.* 2006;6:34-38.
34. Wang L, Chen H, Chang P, et al. Axillary brachial plexus block with patient controlled analgesia for complex regional pain syndrome type I: a case report. *Reg Anesth Pain Med.* 2001;26(1):68-71.
35. Workloss Data Institute. Official Disability Guidelines 2009.