

# Medical Assessments, Inc.

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## IRO CASE #:

## DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:

Right S1 Rhizotomy

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

The Reviewer is a Board Certified Orthopedic Surgeon with over 13 years of experience.

## 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.

## PATIENT CLINICAL HISTORY [SUMMARY]:

The claimant is a female with a DOI of XX/XX/XX when she was lifting a X and strained her lumbar. She is diagnosed with sacroiliac joint sprain, sacroilits, post-laminectomy syndrome, low back pain, and reflex sympathetic dystrophy. The claimant had a spinal cord stimulator implanted in XXXX.

XX/XX/XX: Office visit. Claimant reported chronic right lower extremity aching, burning and stabbing in the thigh with aching numbness, burning, stabbing pins and needles in the distal extremity as far as the foot. Pain worsens with standing, sitting and in the cold weather. Pain awakens her after 4 hours of sleep. Using 5-6 Norco per day. Using Mobic one daily. Neurontin helpful with the electric shock in the right leg. 5/5 strength of the bilateral lower extremities. Normal station and gait. Right leg raise to 180 degrees provokes pain posteriorly in the lower extremity to the calf.

XX/XX/XX: Office visit. Refill meds: Norco, gabapentin, pamelor, Celebrex.

XX/XX/XX: Operative report. **Postoperative Diagnosis:** Depleted Medtronic Restore Advantage, battery being placed 9 years ago.

XX/XX/XX: Office visit. **Medications:** Zolpidem Tartrate 10mg, Celebrex 200mg, Norco 10, Pamelor 25 mg, Neurontin 600 mg. SI injections was denied.

XX/XX/XX: Office visit. Claimant had a SI joint injection on XX/XX/XX. The pain is back. Battery changed for stimulator. Claimant reported pain in the buttock and posterior and anterior portion of the right leg all the way down to the foot. Pain in both lower back is approximately 7 and the leg is about 6.8. Ordered ONJ Sacroillac

W/Steroid.

XX/XX/XX: UR. Rationale for denial: The patient is a female with chronic low back pain radiating to right leg. Diagnosed with sacroiliac joint sprain, sacroillitis, post-laminectomy syndrome, low back pain and reflex sympathetic dystrophy and diabetes. Prior surgical history includes a laminectomy and discectomy in XXXX, then placement of a SCS and SCS battery replacement on XX/XX/XX. Claimant is unable to work at this point, lying around house on ice vs heat more than is active, sleeps poorly. Claimant reports pain better than before SCS implant, becoming more severe. Objective: antalgic gait favoring to the right. Decreased weight bearing of the right when ambulating, seated with right hip elevated. Tenderness to right of the mid sacrum, decreased LTS of right lateral thigh and calf, right SI joint exam. TTP at Fortin\_s point, FABER 4 testing positive, Stork sigh positive, comprehension test positive. Distraction test positive, Supine straight leg raise against resistance positive. Per the latest office visit noted dated XX/XX/XX, the patient's pain had worsened. The pain in the waist and buttocks were not reduced by the SCS. She had pain and pressure sensation in the tailbone. She had increased pain radiation into the left hip and increased pain in the right leg with numbness. The Medtronic SCS is on 24 hours per day. Clarification is needed regarding the procedure being requested. The documented examination findings were suggestive of SI joint pain. It was mentioned being requested. The documented examination findings were suggestive of SI joint pain. It was mentioned that the patient had immediate relief during the anesthetic phase followed by months of relief from the SI joint injection in XXXX. However, guidelines state that the best way to screen in anticipation for a neurotomy has not been established. In addition, guidelines do not recommend sacroiliac radiofrequency neurotomy due to the lack of evidence supporting use of this technique and current treatment remains investigational. Therefore, the medical necessity of the request has not been established.

XX/XX/XX: UR. Rationale for denial: The patient is a female who was injured XX years ago on XX/XX/XX. sacroiliac joint sprain, sacroillitis, post-laminectomy syndrome, low back pain and reflex sympathetic dystrophy and diabetes. Per the latest office visit dated XX/XX/XX, the patient's pain had worsened. The pain in the waist and buttocks were not reduced by the spinal cord stimulator. She had pain and pressure sensations in the tailbone. She had increased pain radiation into the left hip and had increased pain in the right leg with numbness. The SCS is on 24 hours per day. She had decreased weight bearing on the right when ambulating. She sat with the right hip elevated. There was tenderness to the right of mid sacrum. Bilateral lower extremity muscle strength was 5/5. Sensation was decreased at the right lateral thigh and calf. There was tenderness over the Fortin point, FABER, stork, compression, and distraction test were positive. SLR test was positive. In addition, guidelines do not recommend sacroiliac radiofrequency neurotomy due to the lack of evidence supporting use of this technique and current treatment remains investigational. In agreement with the previous determination, the medical necessity of the request is not established.

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

The request for right S1 rhizotomy is denied.

This patient has ongoing pain in the sacroiliac (SI) joint. She has responded well to a SI joint injection in XXXX. She continues to have pain in the right buttock, right leg and lower back despite exchange of a spinal cord stimulator battery in XXXX.

The Official Disability Guidelines (ODG) does not support sacroiliac radiofrequency neurotomy. There is insufficient evidence supporting the long-term benefits of this technique. Diagnostic blocks prior to this procedure do not predict good outcomes with neurotomy.

This procedure is not recommended for this patient.

**ODG Guidelines:**

Not recommended due to the lack of evidence supporting use of this technique. Current treatment remains investigational. More research is needed to refine the technique of SI joint denervation, better assess long-term outcomes, and to determine what combination of variables can be used to improve candidate screening.

*Controversy over the procedure:* Current research available for evaluation indicates the procedure is performed with multiple different techniques, with no consensus on which nerves are most appropriate to lesion. The nerves generally lesioned (the lateral branches of S1, S2, and S3 and the L4 and L5 dorsal rami) innervate the posterior elements of the sacroiliac complex (the posterior sacroiliac ligaments, the interosseous sacroiliac ligaments, interior parts of the lumbar multifidus and erector spinae muscles, medial parts of the gluteus maximum muscle and the posterior aspect of the sacroiliac joint) and the L5-S1 zygapophysial joint. If pain relief occurs, there can therefore be some question as to what pain generator (or generators) was actually addressed. There is also no consensus as to what is the most appropriate diagnostic test to use pre-procedure, and regardless of the diagnostic procedure used, results do not appear to vary substantially. Explanations for the reasons that approximately half of selected patients (again, using varying techniques for diagnosis and treatment) do not respond include a lack of information about accurate innervation, and the possibility that the patient's pain may be secondary to anterior, and therefore untargeted areas. ([Cohen, 2009](#)) ([King, 2015](#)) ([Bogduk, 2015](#))

*Types of radiofrequency neurotomy:* There are three major types of radiofrequency neurotomy. (1) Low intensity radiofrequency neurotomy is administered for 60-90 seconds at a specific temperature. (2) Cooled radiofrequency neurotomy uses a cannula needle that has saline running through to cool the tip. It is noted that theoretically, the cooled technique allowed for larger lesions and can potentially overcome the challenges posed by anatomic variations of the lateral branches. (3) Pulsed radiofrequency neurotomy is performed with signal interruption every half second. ([Aydin, 2010](#)) ([Cheng, 2013](#)) Specific techniques currently described include three major types: (1) A 3-puncture technique in which 3 probes are placed near the dorsal sacral foramen to target S1-S3 lateral branches; (2) A strip-lesion technique, which focuses on a continuous lesion pattern from the L4-L5 dorsal rami region to the S1-S3 dorsal lateral foraminal apertures; (3) A leapfrog technique, which uses multiple probes in close proximity to allow for a larger thermal lesion. The lesions can be used alone or in combination. No standards have been established for type of neurotomy, nerves to ablate, or type of technique. ([Aydin, 2010](#)) ([Cohen, 2008](#)) ([Kapural, 2008](#)) ([Ferrante, 2001](#)) ([Yin, 2003](#)) ([Cohen, 2005](#)) ([Vallejo, 2006](#)) ([Cohen, 2013](#)) ([Cohen, 2009](#)) See also [Intra-articular steroid hip injection](#).

*Cooled Radiofrequency Neurotomy:* Cooled radiofrequency neurotomy has been suggested as it creates larger lesions (8 times greater volume than traditional ablations) to overcome the anatomic variability of the lateral branches and potentially produce a better outcome as compared to a traditional radiofrequency neurotomy. ([Cheng, 2013](#))

*Diagnostic blocks in anticipation of SI neurotomy:* The best way to screen in anticipation for a neurotomy has not been established. Discussion continues as to whether or not lateral branch blocks are necessary, or if intra-vs. peri-articular injections are indicated. There is no "gold standard" diagnostic test or procedure suggested to select the patients who will most benefit from this procedure (regardless of the technique). Published studies have used no confirmatory/prognostic test before proceeding to a definitive neurotomy. Studies have shown no prediction of success of neurotomy based on either prognostic intra-articular or lateral branch blocks, and the use of multiple SI joint local anesthetic blocks, near-complete pain relief from diagnostic blocks or prognostic lateral branch blocks is currently not recommended. ([Cohen, 2009](#)) In a 2012 poster presentation, Cheng et al., indicated that sacroiliac joint intra-articular steroid injections (used as a diagnostic indicator) did not directly predict pain relief with neurotomy, and they do not protect normal volunteers from experimental sacroiliac pain. ([Dreyfuss, 2008](#)) ([Cheng, 2012](#)) ([Cheng, 2013](#)) See [Sacroiliac injections, diagnostic](#).

**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)**