Medical Coverage Policy | Diagnosis and Treatment of Sacroiliac Joint Pain

EFFECTIVE DATE: 02|01|2023
POLICY LAST UPDATED: 01/18/2023

OVERVIEW

Sacroiliac joint (SIJ) arthrography using fluoroscopic guidance with an injection of an anesthetic has been explored as a diagnostic test for SIJ pain. Duplication of the patient's pain pattern with the injection of contrast medium suggests a sacroiliac etiology, as does relief of chronic back pain with injection of local anesthetic. Treatment of SIJ pain with corticosteroids, radiofrequency ablation (RFA), stabilization, or minimally invasive SIJ fusion has also been explored.

This policy addresses the following services:

- Minimally invasive surgical fusion
- Injection of anesthetic for diagnosing pain
- Injection of corticosteroid for the treatment of pain
- Radiofrequency denervation

MEDICAL CRITERIA

Commercial Products

Minimally-invasive surgical (MIS) fusion of the sacroiliac (SI) joint is considered medically necessary when ALL of the following criteria are met:

- Have moderate to severe pain with functional impairment and pain persists despite a minimum six months of intensive non-operative treatment that must include medication optimization, activity modification, bracing, and active therapeutic exercise targeted at the lumbar spine, pelvis, SIJ and hip including a home exercise program
- Patient's report of typically unilateral pain that is caudal to the lumbar spine (L5 vertebrae), localized over the posterior SIJ, and consistent with SIJ pain
- A thorough physical examination demonstrating localized tenderness with palpation over the sacral sulcus (Fortin's point, i.e. at the insertion of the long dorsal ligament inferior to the posterior superior iliac spine or PSIS) in the absence of tenderness of similar severity elsewhere (e.g. greater trochanter, lumbar spine, coccyx) and that other obvious sources for their pain do not exist
- Positive response to a cluster of 3 provocative tests (e.g. thigh thrust test, compression test, Gaenslen's test, distraction test, Patrick's sign, posterior provocation test).
- Absence of generalized pain behavior (e.g. somatoform disorder) or generalized pain disorders (e.g. fibromyalgia)
- Diagnostic imaging studies that include ALL the following:
    - Imaging (plain radiographs and a CT or MRI) of the SI joint that excludes the presence of destructive lesions (e.g. tumor, infection), fracture, traumatic SIJ instability, or inflammatory arthropathy that would not be properly addressed by percutaneous SIJ fusion
    - Imaging of the pelvis (AP plain radiograph) to rule out concomitant hip pathology
    - Imaging of the lumbar spine (CT or MRI) to rule out neural compression or other degenerative condition that can be causing low back or buttock pain
- At least 75 percent reduction of pain for the expected duration of two anesthetics (on separate visits each with a different duration of action), and the ability to perform previously painful maneuvers, following an image-guided, contrast-enhanced intra-articular SIJ injection.
- A trial of at least one therapeutic intra-articular SIJ injection (i.e. corticosteroid injection).

PRIOR AUTHORIZATION

Prior authorization is recommended for Commercial Products for minimally invasive surgical fusion of the sacroiliac joint. For Medicare Advantage Plans, please refer to the Related Policies section.

POLICY STATEMENT

Medicare Advantage Plans

Please refer to the Related Policies section for minimally-invasive surgical (MIS) fusion of the sacroiliac (SI) joint

Injection of anesthetic for diagnosing sacroiliac joint pain and injection of corticosteroid for the treatment of sacroiliac joint pain is covered.

Radiofrequency denervation of the sacroiliac joint is not covered as the evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

Commercial Products

Minimally-invasive surgical (MIS) fusion of the sacroiliac (SI) joint is considered medically necessary when the medical criteria above has been met.

Injection of anesthetic for diagnosing sacroiliac joint pain and injection of corticosteroid for the treatment of sacroiliac joint pain is covered.

Radiofrequency denervation of the sacroiliac joint is not medically necessary as the evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

COVERAGE

Benefits may vary between groups and contracts. Please refer to the appropriate section of the Benefit Booklet, Evidence of Coverage, or Subscriber Agreement for applicable surgery and not medically necessary/not covered benefits/coverage.

BACKGROUND

Sacroiliac Joint Pain

Similar to other structures in the spine, it is assumed the sacroiliac joint (SIJ) may be a source of low back pain. In fact, before 1928, the SIJ was thought to be the most common cause of sciatica. In 1928, the role of the intervertebral disc was elucidated, and from that point forward, the SIJ received less research attention.

Diagnosis

Research into SIJ pain has been plagued by lack of a criterion standard to measure its prevalence and against which various clinical examinations can be validated. For example, SIJ pain is typically without any consistent, demonstrable radiographic or laboratory features and most commonly exists in the setting of morphologically normal joints. Clinical tests for SIJ pain may include various movement tests, palpation to detect tenderness, and pain descriptions by the patient. Further confounding study of the SIJ is that multiple structures, (eg, posterior facet joints, lumbar discs) may refer pain to the area surrounding the SIJ.

Because of inconsistent information obtained from history and physical examination, some have proposed the use of image-guided anesthetic injection into the SIJ for the diagnosis of SIJ pain. Treatments being investigated for SIJ pain include prolotherapy, corticosteroid injection, radiofrequency ablation, stabilization, and arthrodesis. Some procedures have been referred to as SIJ fusion but may be more appropriately called fixation due to little to no bridging bone on radiographs. Devices for SIJ fixation/fusion that promote bone ingrowth to fixate the implants include a triangular implant (iFuse Implant System) and cylindrical threaded devices (Rialto, SImmetry, Silex, SambaScrew, SI-LOK). Some devices also have a slot in the middle where autologous or allogeneic bone can be inserted. This added bone is intended to promote fusion of the SIJ.

A number of radiofrequency generators and probes have been cleared for marketing by the U.S. Food and Drug Administration (FDA) through the 510(k) process. In 2005, the SInergy® (Halyard; formerly Kimberly-

Clark), a water-cooled single-use probe, was cleared by the FDA, listing the Baylis Pain Management Probe as a predicate device. The intended use is in conjunction with a radiofrequency generator to create radiofrequency lesions in nervous tissue.

For individuals who have SIJ pain who receive RFA, the evidence includes 5 RCTs using different radiofrequency applications and case series. Relevant outcomes are symptoms, functional outcomes, QOL, medication use, and treatment-related morbidity. Meta-analysis of available sham-controlled RCTs suggests that there may be a small effect of RFA on SIJ pain at short-term (1-3 months) follow-up. However, the RCTs of RFA have methodologic limitations, and there is limited data on the duration of the treatment effect. The single RCT with 6 and 12-month follow-up showed no significant benefit of RFA compared to an exercise control group at these time points. In addition, heterogeneity of RFA treatment techniques precludes generalizing results across different studies. For RFA with a cooled probe, 2 small RCTs reported short-term benefits, but these are insufficient to determine the overall effect on health outcomes. An RCT on palisade RFA of the SIJ did not include a sham control. Another sham-controlled RCT showed no benefit from RFA. Further high-quality controlled trials are needed to compare this procedure in defined populations with sham control and alternative treatments. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome

CODING

Commercial Products

The following CPT code is considered medically necessary when the criteria above has been met:

27279 Arthrodesis, sacroiliac joint, percutaneous or minimally invasive (indirect visualization), with image guidance, includes obtaining bone graft when performed, and placement of transfixing device

For Medicare Advantage Plans, please refer to the Related Policies section.

Medicare Advantage Plans and Commercial Products

The following CPT codes are covered and authorization is not required:

27096 Injection procedure for sacroiliac joint, anesthetic/steroid, with image guidance (fluoroscopy or CT) including arthrography when performed

64451 Injection anesthetic agent, nerves innervating the sacroiliac joint with image guidance

G0260 Injection procedure for sacroiliac joint; provision of anesthetic, steroid and/or other therapeutic agent, with or without arthrography

The following CPT code is not covered for Medicare Advantage Plans and not medically necessary for Commercial Products:

64625 Radiofrequency ablation, nerves innervating the sacroiliac joint, with image guidance (ie, fluoroscopy or computed tomography)

27278 Arthrodesis, sacroiliac joint, percutaneous, with image guidance, including placement of intra-articular implant(s) (eg, bone allograft[s], synthetic device[s]), without placement of transfixation device (New code effective 1/01/2024)

RELATED POLICIES

Prior Authorization of Spinal Procedures

PUBLISHED

Provider Update, May 2022, December 2022
Provider Update, June 2021
Provider Update, June 2020
Provider Update, September 2019

REFERENCES

1. Centers for Medicare and Medicaid Services (CMS). Local Coverage Determination (LCD): Minimally-invasive Surgical (MIS) Fusion of the Sacroiliac (SI) Joint (L36406)

2. Centers for Medicare and Medicaid Services (CMS). Local Coverage Article - Billing and Coding: Minimally-invasive Surgical (MIS) Fusion of the Sacroiliac (SI) Joint (A57431)
3. Centers for Medicare and Medicaid Services (CMS). Local Coverage Determination (LCD): Pain Management (L33622)
4. Centers for Medicare and Medicaid Services (CMS). Local Coverage Article - Billing and Coding: Pain Management (A52863)
5. Himstead AS, Brown NJ, Shahrestani S, et al. Trends in Diagnosis and Treatment of Sacroiliac Joint Pathology Over the Past 10 Years: Review of Scientific Evidence for New Devices for Sacroiliac Joint Fusion. Cureus. Jun 2021; 13(6): e15415. PMID 34249562
6. Dreyfuss P, Michaelsen M, Pauza K, et al. The value of medical history and physical examination in diagnosing sacroiliac joint pain. Spine (Phila Pa 1976). Nov 15 1996; 21(22): 2594-602. PMID 8961447
7. Simopoulos TT, Manchikanti L, Gupta S, et al. Systematic Review of the Diagnostic Accuracy and Therapeutic Effectiveness of Sacroiliac Joint Interventions. Pain Physician. Sep-Oct 2015; 18(5): E713-56. PMID 26431129
8. Manchikanti L, Abdi S, Atluri S, et al. An update of comprehensive evidence-based guidelines for interventional techniques in chronic spinal pain. Part II: guidance and recommendations. Pain Physician. Apr 2013; 16(2 Suppl): S49-283. PMID 23615883
9. Manchikanti L, Datta S, Derby R, et al. A critical review of the American Pain Society clinical practice guidelines for interventional techniques: part 1. Diagnostic interventions. Pain Physician. May-Jun 2010; 13(3): E141-74. PMID 20495596
10. Manchikanti L, Datta S, Gupta S, et al. A critical review of the American Pain Society clinical practice guidelines for interventional techniques: part 2. Therapeutic interventions. Pain Physician. Jul-Aug 2010; 13(4): E215-64. PMID 20648212
11. Rupert MP, Lee M, Manchikanti L, et al. Evaluation of sacroiliac joint interventions: a systematic appraisal of the literature. Pain Physician. Mar-Apr 2009; 12(2): 399-418. PMID 19305487
12. Chou R, Atlas SJ, Stanos SP, et al. Nonsurgical interventional therapies for low back pain: a review of the evidence for an American Pain Society clinical practice guideline. Spine (Phila Pa 1976). May 01 2009; 34(10): 1078-93. PMID 19363456
13. Chou R, Loeser JD, Owens DK, et al. Interventional therapies, surgery, and interdisciplinary rehabilitation for low back pain: an evidence-based clinical practice guideline from the American Pain Society. Spine (Phila Pa 1976). May 01 2009; 34(10): 1066-77. PMID 19363457
14. Hansen H, Manchikanti L, Simopoulos TT, et al. A systematic evaluation of the therapeutic effectiveness of sacroiliac joint interventions. Pain Physician. May-Jun 2012; 15(3): E247-78. PMID 22622913
15. Visser LH, Woudenberg NP, de Bont J, et al. Treatment of the sacroiliac joint in patients with leg pain: a randomized-controlled trial. Eur Spine J. Oct 2013; 22(10): 2310-7. PMID 23720124
16. Kim WM, Lee HG, Jeong CW, et al. A randomized controlled trial of intra-articular prolotherapy versus steroid injection for sacroiliac joint pain. J Altern Complement Med. Dec 2010; 16(12): 1285-90. PMID 21138388
17. Kennedy DJ, Engel A, Kreiner DS, et al. Fluoroscopically Guided Diagnostic and Therapeutic Intra-Articular Sacroiliac Joint Injections: A Systematic Review. Pain Med. Aug 2015; 16(8): 1500-18. PMID 26178855
18. Chou R, Fu R, Dana T, Pappas M, Hart E, Mauer KM. Interventional Treatments for Acute and Chronic Pain: Systematic Review. Comparative Effectiveness Review No. 247. (Prepared by the Pacific Northwest Evidencebased Practice Center under Contract No. 75Q80120D00006.) AHRQ Publication No. 21-EHC030. Rockville, MD: Agency for Healthcare Research and Quality; September 2021. PMID: 34524764
19. Chappell ME, Lakshman R, Trotter P, et al. Radiofrequency denervation for chronic back pain: a systematic review and meta-analysis. BMJ Open. Jul 21 2020; 10(7): e035540. PMID 32699129
20. Juch JNS, Maas ET, Ostelo RWJG, et al. Effect of Radiofrequency Denervation on Pain Intensity Among Patients With Chronic Low Back Pain: The Mint Randomized Clinical Trials. JAMA. Jul 04 2017; 318(1): 68-81. PMID 28672319
21. Chen CH, Weng PW, Wu LC, et al. Radiofrequency neurotomy in chronic lumbar and sacroiliac joint pain: A metaanalysis. Medicine (Baltimore). Jun 2019; 98(26): e16230. PMID 31261580

22. Mehta V, Poply K, Husband M, et al. The Effects of Radiofrequency Neurotomy Using a Strip-Lesioning Device on Patients with Sacroiliac Joint Pain: Results from a Single-Center, Randomized, Sham-Controlled Trial. Pain Physician. Nov 2018; 21(6): 607-618. PMID 30508988
23. van Tilburg CW, Schuurmans FA, Stronks DL, et al. Randomized Sham-controlled Double-Blind Multicenter Clinical Trial to Ascertain the Effect of Percutaneous Radiofrequency Treatment for Sacroiliac Joint Pain: Three-month Results. Clin J Pain. Nov 2016; 32(11): 921-926. PMID 26889616
24. Zheng Y, Gu M, Shi D, et al. Tomography-guided palisade sacroiliac joint radiofrequency neurotomy versus celecoxib for ankylosing spondylitis: a open-label, randomized, and controlled trial. Rheumatol Int. Sep 2014; 34(9): 1195-202. PMID 24518967
25. Patel N, Gross A, Brown L, et al. A randomized, placebo-controlled study to assess the efficacy of lateral branch neurotomy for chronic sacroiliac joint pain. Pain Med. Mar 2012; 13(3): 383-98. PMID 22299761
26. Patel N. Twelve-Month Follow-Up of a Randomized Trial Assessing Cooled Radiofrequency Denervation as a Treatment for Sacroiliac Region Pain. Pain Pract. Feb 2016; 16(2): 154-67. PMID 25565322
27. Whang P, Cher D, Polly D, et al. Sacroiliac Joint Fusion Using Triangular Titanium Implants vs. Non-Surgical Management: Six-Month Outcomes from a Prospective Randomized Controlled Trial. Int J Spine Surg. 2015; 9: 6. PMID 25785242
28. Polly DW, Cher DJ, Wine KD, et al. Randomized Controlled Trial of Minimally Invasive Sacroiliac Joint Fusion Using Triangular Titanium Implants vs Nonsurgical Management for Sacroiliac Joint Dysfunction: 12-Month Outcomes. Neurosurgery. Nov 2015; 77(5): 674-90; discussion 690-1. PMID 26291338
29. Polly DW, Swofford J, Whang PG, et al. Two-Year Outcomes from a Randomized Controlled Trial of Minimally Invasive Sacroiliac Joint Fusion vs. Non-Surgical Management for Sacroiliac Joint Dysfunction. Int J Spine Surg. 2016; 10: 28. PMID 27652199
30. Darr E, Meyer SC, Whang PG, et al. Long-term prospective outcomes after minimally invasive trans-iliac sacroiliac joint fusion using triangular titanium implants. Med Devices (Auckl). 2018; 11: 113-121. PMID 29674852
31. Sturesson B, Kools D, Pflugmacher R, et al. Six-month outcomes from a randomized controlled trial of minimally invasive SI joint fusion with triangular titanium implants vs conservative management. Eur Spine J. Mar 2017; 26(3): 708-719. PMID 27179664
32. Dengler J, Sturesson B, Kools D, et al. Referred leg pain originating from the sacroiliac joint: 6-month outcomes from the prospective randomized controlled iMIA trial. Acta Neurochir (Wien). Nov 2016; 158(11): 2219-2224. PMID 27629371
33. Dengler JD, Kools D, Pflugmacher R, et al. 1-Year Results of a Randomized Controlled Trial of Conservative Management vs. Minimally Invasive Surgical Treatment for Sacroiliac Joint Pain. Pain Physician. Sep 2017; 20(6): 537-550. PMID 28934785
34. Dengler J, Kools D, Pflugmacher R, et al. Randomized Trial of Sacroiliac Joint Arthrodesis Compared with Conservative Management for Chronic Low Back Pain Attributed to the Sacroiliac Joint. J Bone Joint Surg Am. Mar 06 2019; 101(5): 400-411. PMID 30845034
35. Duhon BS, Cher DJ, Wine KD, et al. Triangular Titanium Implants for Minimally Invasive Sacroiliac Joint Fusion: A Prospective Study. Global Spine J. May 2016; 6(3): 257-69. PMID 27099817
36. Duhon BS, Bitan F, Lockstadt H, et al. Triangular Titanium Implants for Minimally Invasive Sacroiliac Joint Fusion: 2-Year Follow-Up from a Prospective Multicenter Trial. Int J Spine Surg. 2016; 10: 13. PMID 27162715
37. Whang PG, Darr E, Meyer SC, et al. Long-Term Prospective Clinical And Radiographic Outcomes After Minimally Invasive Lateral Transiliac Sacroiliac Joint Fusion Using Triangular Titanium Implants. Med Devices (Auckl). 2019; 12: 411-422. PMID 31576181
38. Patel V, Kovalsky D, Meyer SC, et al. Prospective Trial of Sacroiliac Joint Fusion Using 3D-Printed Triangular Titanium Implants. Med Devices (Auckl). 2020; 13: 173-182. PMID 32607011
39. Vanaclocha V, Herrera JM, Saiz-Sapena N, et al. Minimally Invasive Sacroiliac Joint Fusion, Radiofrequency Denervation, and Conservative Management for Sacroiliac Joint Pain: 6-Year Comparative Case Series. Neurosurgery. Jan 01 2018; 82(1): 48-55. PMID 28431026
40. Spain K, Holt T. Surgical Revision after Sacroiliac Joint Fixation or Fusion. Int J Spine Surg. 2017; 11: 5. PMID 28377863
41. Schoell K, Buser Z, Jakoi A, et al. Postoperative complications in patients undergoing minimally invasive sacroiliac fusion. Spine J. Nov 2016; 16(11): 1324-1332. PMID 27349627

42. Tran ZV, Ivashchenko A, Brooks L. Sacroiliac Joint Fusion Methodology - Minimally Invasive Compared to Screw-Type Surgeries: A Systematic Review and Meta-Analysis. Pain Physician. Jan 2019; 22(1): 29-40. PMID 30700066
43. Lorio M, Kube R, Araghi A. International Society for the Advancement of Spine Surgery Policy 2020 Update-Minimally Invasive Surgical Sacroiliac Joint Fusion (for Chronic Sacroiliac Joint Pain): Coverage Indications, Limitations, and Medical Necessity. Int J Spine Surg. Dec 2020; 14(6): 860-895. PMID 33560247
44. Rappoport LH, Luna IY, Joshua G. Minimally Invasive Sacroiliac Joint Fusion Using a Novel Hydroxyapatite-Coated Screw: Preliminary 1-Year Clinical and Radiographic Results of a 2-Year Prospective Study. World Neurosurg. May 2017; 101: 493-497. PMID 28216399
45. Rappoport LH, Helsper K, Shirk T. Minimally invasive sacroiliac joint fusion using a novel hydroxyapatite-coated screw: final 2-year clinical and radiographic results. J Spine Surg. Jun 2021; 7(2): 155-161. PMID 34296027
46. Araghi A, Woodruff R, Colle K, et al. Pain and Opioid use Outcomes Following Minimally Invasive Sacroiliac Joint Fusion with Decortication and Bone Grafting: The Evolusion Clinical Trial. Open Orthop J. 2017; 11: 1440-1448. PMID 29387289
47. Fuchs V, Ruhl B. Distraction arthrodesis of the sacroiliac joint: 2-year results of a descriptive prospective multicenter cohort study in 171 patients. Eur Spine J. Jan 2018; 27(1): 194-204. PMID 29058134
48. North American Spine Society (NASS). NASS coverage policy recommendations. https://www.spine.org/coverage Accessed October 26, 2020.
49. Benzon HT, Connis RT, De Leon-Casasola OA, et al. Practice guidelines for chronic pain management: an updated report by the American Society of Anesthesiologists Task Force on Chronic Pain Management and the American Society of Regional Anesthesia and Pain Medicine. Anesthesiology. Apr 2010; 112(4): 810-33. PMID 20124882
50. Lee DW, Pritzlaff S, Jung MJ, et al. Latest Evidence-Based Application for Radiofrequency Neurotomy (LEARN): Best Practice Guidelines from the American Society of Pain and Neuroscience (ASPN). J Pain Res. 2021; 14: 2807-2831. PMID 34526815
51. National Institute for Health and Care Excellence. Minimally invasive sacroiliac joint fusion surgery for chronic sacroiliac pain [IPG578]. 2017; https://www.nice.org.uk/guidance/ipg578. Accessed October 26, 2020.