Cohere Medicare Advantage Policy - Sacroiliac Joint Fusion

Clinical Guidelines for Medical Necessity Review

Version: 2
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Guideline Information:

Specialty Area: Disorders of the Musculoskeletal System
Guideline Name: Cohere Medicare Advantage Policy - Sacroiliac Joint Fusion

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Type: [**X**] Adult (18+ yo) | [_] Pediatric (0-17yo)

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Medical Necessity Criteria

Service: Sacroiliac Joint Fusion

Benefit Category

Not applicable.

Recommended Clinical Approach

Sacroiliac (SI) joint fusion may be appropriate for patients with low back pain originating from the SI joint that does not improve with conservative (non-operative) treatment.[1] SI joint pain may be related to conditions such as arthritis (post-traumatic, degenerative, infectious, or inflammatory), postpartum instability, joint degeneration related to previous lumbar fusion, joint damage from previous posterior iliac crest bone graft harvesting, and cancerous processes.[2]

Following attempted conservative treatment, minimally-invasive surgical (MIS) fusion of the SI joint may be appropriate. This percutaneous procedure has become an alternative to open SI joint fusion in recent years, with studies demonstrating positive outcomes compared with the open procedure.[2]

Evaluation of Clinical Benefits and Potential Harms

Cohere Health uses the criteria below to ensure consistency in reviewing the conditions to be met for coverage of sacroiliac joint fusion. This process helps to prevent both incorrect denials and inappropriate approvals of medically necessary services. Specifically, limiting incorrect approvals reduces the risks associated with unnecessary procedures, such as complications from surgery, infections, and prolonged recovery times.

The potential clinical harms of using these criteria may include:

- Inadequate management of sacroiliac joint pain, leading to complications like progression of degenerative joint disease, worsening pain, and reduced mobility. With decreased mobility additional medical comorbidities can occur.
- Risks with inappropriate surgical procedures include infection, bleeding, injury to neurovascular structures, anesthetic risk and need for repeat

or additional procedures due to pseudoarthrosis or hardware migration or failure. Sachs et al report complication rates from SI joint fusion to be falls in 3.5% of patients, trochanteric bursitis 2.8%, ongoing pain 2.1% and piriformis syndrome 2.1%. Revision surgery rates at one year are 0.7%.[12]

- Adverse effects from delayed or denied treatment, which can worsen patient outcomes, such as increased risk of chronic pain with potential for opioid dependence and disability.
- Increased healthcare costs and complications from the inappropriate use of emergency services and additional treatments.

The clinical benefits of using these criteria include:

- Improved patient outcomes by ensuring timely and appropriate access to sacroiliac joint fusion for managing various conditions related to the sacroiliac joint. Shamrock et al. performed a systematic review of percutaneous minimally invasive sacroiliac (SI) joint fusion in 720 patients.[9] Surgical wound infection and drainage were a complication in 11% of patients. The revision rate was low at 2.56. Polly et al. report the two-year outcomes of 148 patients who received minimally invasive SI joint fusion with 83% reporting substantial benefit.[10]
- Reduction in complications and adverse effects from unnecessary procedures.
- Smoking is a known risk factor for increased surgical compilations. Nunna et al evaluated 17 studies for a combined cohort of 37,897 patients and identified smoking was associated with one or more major adverse events in 2 level fusions.[13] Berman et al identified that smoking significantly increases the risk of pseudoarthrosis for patients undergoing both lumbar and cervical fusions.[14] In addition to nonunion, other perioperative complications such as infection, adjacent segment disease, and dysphagia are also increased. They recommend smoking cessation for 4 weeks prior to surgery, and consideration of additional support for fusion, such as BMPs.
- Enhanced overall patient satisfaction and healthcare experience.

This policy includes provisions for expedited reviews and flexibility in urgent cases to mitigate risks of delayed access. Evidence-based criteria are employed to prevent inappropriate denials, ensuring that patients receive medically necessary care. The criteria aim to balance the need for effective treatment with the minimization of potential harms, providing numerous

clinical benefits in helping avoid unnecessary complications from inappropriate care.

In addition, the use of these criteria is likely to decrease inappropriate denials by creating a consistent set of review criteria, thereby supporting optimal patient outcomes and efficient healthcare utilization.

Medical Necessity Criteria

Indications

- ➔ **Sacroiliac joint fusion** is considered appropriate if **ALL** of the following are **TRUE**[2-7]:
  - ◆ The patient has not smoked in greater than or equal to the last 6 weeks; **AND**
  - ◆ Moderate to severe pain with functional impairment and pain that persists; **AND**
  - ◆ The patient reports non-radiating, unilateral pain that is caudal to the lumbar spine (L5 vertebrae), localized over the posterior SI joint, and consistent with SI joint pain; **AND**
  - ◆ There is an absence of generalized pain behavior (e.g., somatoform disorder) or generalized pain disorders (e.g., fibromyalgia); **AND**
  - ◆ The patient has a positive response to 3 or more provocative tests, including **ANY** of the following:
    - Distraction test; **OR**
    - Compression test; **OR**
    - Thigh thrust test; **OR**
    - Gaenslen's test; **OR**
    - FABER maneuver/Patrick's sign; **OR**
    - Posterior provocation test; **AND**
  - ◆ A thorough physical examination has revealed localized tenderness with palpation of the posterior SI joint in the absence of tenderness of similar severity elsewhere, such as the greater trochanter, lumbar spine, or coccyx, and there are no other obvious sources of pain; **AND**
  - ◆ Imaging studies of the SI joint (radiographs, MRI, or CT) that exclude the presence of **ALL** of the following:
    - Destructive lesions (e.g., tumor, infection); **AND**
    - Fracture; **AND**

- Traumatic SIJ instability; **AND**
- Inflammatory arthropathy that would not be properly addressed by percutaneous SIJ fusion; **AND**

◆ Imaging of the pelvis (anteroposterior [AP] plain radiograph, including the ipsilateral hip) to rule out concomitant hip pathology; **AND**

◆ Imaging of the lumbar spine (CT or MRI) to rule out neural compression or other degenerative conditions that can be causing the low back or buttock pain; **AND**

◆ Failure of conservative management for greater than 6 months, including **ALL** of the following:

- Oral steroid or anti-inflammatory medication; **AND**
- Physical therapy; **AND**
- Image-guided SI joint injection resulting in **ALL** of the following:
  - At least 75% reduction of pain for the expected duration of the anesthetic used on two separate occasions; **AND**
  - Ability to perform previously painful maneuvers; **AND**
- A trial of at least one intra-articular SI joint corticosteroid injection.

Non-Indications

➔ **Sacroiliac joint fusion** is not considered appropriate if **ANY** of the following is **TRUE**[3,6]:

◆ Systemic arthropathy (e.g., ankylosing spondylitis or rheumatoid arthritis); **OR**

◆ Acute, traumatic instability of the SI joint; **OR**

◆ Presence of generalized pain behavior (e.g., somatoform disorder) or generalized pain disorder (e.g., fibromyalgia); **OR**

◆ Infection at the surgical site; **OR**

◆ Tumor; **OR**

◆ Fracture; **OR**

◆ Use of a device that does not transfix the SI joint (PainTEQ's LinQ SI Joint Stabilization procedure)[8]; **OR**

◆ The patient has smoked within the last 6 weeks (exception for acute or traumatic lumbar spine conditions).

Level of Care Criteria

Outpatient

Procedure Codes (HCPCS/CPT)

HCPCS/CPT Code	Code Description
0809T	Arthrodesis, sacroiliac joint, percutaneous or minimally invasive (indirect visualization), with image guidance, placement of transfixing device(s) and intra articular implant(s), including allograft or synthetic device(s)
20999	Unlisted procedure, musculoskeletal system, general
22848	Pelvic fixation (attachment of caudal end of instrumentation to pelvic bony structures) other than sacrum (List separately in addition to code for primary procedure)
27278	Arthrodesis, sacroiliac joint, percutaneous, with image guidance, including placement of intra-articular implant(s) (e.g. bone allograft[s], synthetic device[s]), without placement of transfixing device.
27279	Arthrodesis, sacroiliac joint, percutaneous or minimally invasive (indirect visualization), with image guidance, includes obtaining bone graft when performed, and placement of transfixing device
27280	Arthrodesis, sacroiliac joint, open, includes obtaining bone graft, including instrumentation, when performed and placement of transfixing device

Medical Evidence

Shamrock et al. (2019) performed a systematic review of the safety profile of percutaneous minimally invasive sacroiliac (SI) joint fusion. Of the 720 patients, 99 (13.75%) underwent bilateral SI joint arthrodesis, including 819 fused SI joints. Surgical wound infection and drainage were a complication in 11% of patients. The revision rate was low (2.56%).[9]

Polly et al. (2016) report the two-year outcomes from a randomized control trial (RCT) of 148 patients who received minimally invasive SI joint fusion or non-surgical management for SI joint dysfunction. At two-year follow-up, those assigned to the fusion group reported clinical improvement (83%) or substantial benefit (82.0%) of the visual analog score (VAS). Conversely, these percentages were lower among non-surgical treatment patients (68.2% and 65.9%, respectively). Adverse events were minimal; three patients in the fusion group required revision surgery before a two-year follow-up.[10]

Zaidi et al. (2015) reviewed the surgical and clinical efficacy of SI joint fusion. A total of 430 patients were identified in five consecutive case series, eight retrospective studies, and three prospective cohort studies. Open surgery was performed in 131 patients, and 299 required minimally invasive surgery (MIS) for SI joint fusion. Follow-up was 60 months for open surgery and 21 months for MIS. The most common indication for 257 patients who underwent surgical treatment was SI joint degeneration/arthrosis (59.8%), SI joint dysfunction (18.4%), postpartum instability (7.2%), post-traumatic (6.5%), idiopathic (5.8%), pathological fractures (1.4%), and HLA-B27+/ rheumatoid arthritis (0.9%). Overall, rates of satisfaction were excellent, with noted improvements in pain, function, and quality of life.[11]

The North American Spine Society (NASS) published a coverage policy recommendation for *Minimally Invasive Sacroiliac Joint Fusion,* which supports coverage for treating SI joint pain for low back pain. Studies show that the procedure is relatively safe - estimated blood loss is low, as are the rates of infection, complications, and the need for revision surgery.[6]

The International Society for the Advancement of Spine Surgery (ISASS) also published a similar policy statement for *Minimally Invasive Sacroiliac Joint Fusion,* which states support for the procedure.[7]

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Clinical Guideline Revision History/Information

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