

**2.01.103 Trigger Point and Tender Point Injections****Original Policy Date:** November 1, 2016**Effective Date:** June 1, 2023**Section:** 2.0 Medicine**Page:** Page 1 of 15**Policy Statement**

- I. Trigger point injections with anesthetic and/or corticosteroid may be considered **medically necessary** for the treatment of myofascial pain syndrome when **all** of the following criteria have been met:
  - A. Conservative therapy (e.g., physical therapy, active exercises, ultrasound, heating or cooling, massage, activity modification, or pharmacotherapy) for 6 weeks fails or is not feasible
  - B. No more than 4 injections are given in a 12-month period (combined total use of either CPT code 20552 or 20553, see Policy Guidelines section)
  - C. There is a regional pain complaint in the expected distribution of referral pain from a trigger point
  - D. There is restricted range of motion
  - E. There is spot tenderness in a palpable taut band in a muscle
  - F. Trigger point injections are provided as a component of a comprehensive therapy program
- II. Trigger point and tender point injections are considered **investigational** for all other indications, including the following:
  - A. Abdominal wall pain
  - B. Complex regional pain syndrome
  - C. Fibromyalgia
  - D. Treatment of myofascial pain syndrome not meeting the criteria above
- III. Ultrasound and other imaging guidance of trigger point injections are considered **investigational**.

**NOTE:** Refer to [Appendix A](#) to see the policy statement changes (if any) from the previous version.

**Policy Guidelines****Coding**

Trigger point injections are reported with the following CPT codes:

- **20552:** Injection(s); single or multiple trigger point(s), 1 or 2 muscle(s)
- **20553:** Injection(s); single or multiple trigger point(s), 3 or more muscles

Imaging guidance for the injection would be reported with one of the following codes, depending on the modality used:

- **76942:** Ultrasonic guidance for needle placement (e.g., biopsy, aspiration, injection, localization device), imaging supervision and interpretation
- **77002:** Fluoroscopic guidance for needle placement (e.g., biopsy, aspiration, injection, localization device) (List separately in addition to code for primary procedure)
- **77012:** Computed tomography guidance for needle placement (e.g., biopsy, aspiration, injection, localization device), radiological supervision and interpretation
- **77021:** Magnetic resonance imaging guidance for needle placement (e.g., for biopsy, needle aspiration, injection, or placement of localization device) radiological supervision and interpretation

## Description

Trigger points are discrete, focal, hyperirritable spots within a taut band of skeletal muscle fibers that produce local and/or referred pain when stimulated. Tender points also produce local pain when stimulated but lack the taut band of tissue and hyperirritability when palpated. Injection of an anesthetic agent or botulinum toxin into trigger points and tender points is being evaluated for the management of a variety of pain syndromes.

## Related Policies

- Dry Needling of Trigger Points for Myofascial Pain

## Benefit Application

Benefit determinations should be based in all cases on the applicable contract language. To the extent there are any conflicts between these guidelines and the contract language, the contract language will control. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage of these services as it applies to an individual member.

Some state or federal mandates (e.g., Federal Employee Program [FEP]) prohibits plans from denying Food and Drug Administration (FDA)-approved technologies as investigational. In these instances, plans may have to consider the coverage eligibility of FDA-approved technologies on the basis of medical necessity alone.

## Regulatory Status

Although medications used with invasive trigger point and tender point procedures are regulated by the U.S. Food and Drug Administration (FDA), trigger and tender point injections are procedures and, as such, are not subject to regulation by the FDA.

## Rationale

### Background

#### Trigger Points

### Definition

Trigger points are discrete, focal, hyperirritable spots within a taut band of skeletal muscle fibers that produce local and/or referred pain when stimulated. Trigger points are associated with local ischemia and hypoxia, a significantly lowered pH, local and referred pain and altered muscle activation patterns.

### Treatment

Trigger point injections with local anesthetic, saline, steroid, or botulinum toxin type A are a potential treatment for pain associated with trigger points. Alternative nonpharmacologic treatment modalities for trigger point pain include manual techniques, massage, acupressure, ultrasonography, application of heat or ice, diathermy, transcutaneous electrical nerve stimulation, and spray cooling with manual stretch.<sup>1</sup>

### Associated Disorders

#### Myofascial Pain Syndrome

Myofascial pain syndrome is a chronic regional pain disorder caused by the activation of at least 1 trigger point in muscles, tendons, or muscle fascia. It can cause local or referred pain, tightness,

tenderness, stiffness and limitation of movement, muscle weakness, and often autonomic phenomena. The severity of symptoms and degree of functional impairment vary. Some individuals will have few trigger points with mild symptoms and no functional impairment, while others will have multiple satellite trigger points, widespread and severe pain, and major functional impairments. Conditions that can lead to myofascial pain syndrome include chronic repetitive minor muscle strain, poor posture, systemic disease, strain, sprain, enthesopathy, and arthritis. Management of chronic myofascial pain typically includes behavioral and pharmacologic approaches and physical therapy. Injection of a local anesthetic or botulinum toxin has also been reported.

### **Complex Regional Pain Syndrome**

Complex regional pain syndrome (previously called sympathetic dystrophy) refers to a chronic and disabling condition characterized by persistent pain that is disproportionate to the extent and duration of the primary injury and is not restricted to the distribution of a specific peripheral nerve.<sup>2</sup> Complex regional pain syndrome occurs most commonly following wrist fracture but may follow many other types of injury, even when the preceding injury is relatively minor. Complex regional pain syndrome may also occur when there is no known injury. Complex regional pain syndrome is classified into type I when a specific nerve lesion has not been identified and type II when there is an identifiable nerve lesion. The pain may consist of thermal or mechanical allodynia (pain that occurs from a stimulus that normally does not elicit a painful response such as light touch or warmth) dysesthesia (a constant or ongoing unpleasant or electrical sensation of pain), and/or hyperalgesia (an exaggerated response to normally painful stimuli). Management of complex regional pain syndrome includes oral and topical pharmacotherapy, physical therapy, psychological therapies, and interventional procedures such as regional anesthetic blocks, sympathetic blocks, or spinal cord stimulation. Amputation of the affected limb has also been performed.

### **Abdominal Wall Pain**

A source of chronic abdominal wall pain is anterior cutaneous nerve entrapment syndrome, which typically presents as sharp and focal abdominal pain, and is often found near a scar. One hypothesis is that anterior cutaneous nerve entrapment syndrome results from the entrapment and ischemia of an anterior cutaneous branch of a thoracic nerve as it passes through the rectus abdominus muscle.<sup>3</sup> Anterior wall pain can be distinguished from intra-abdominal pain by documenting that pain increases with maneuvers that tense the abdominal muscles. It has also been proposed that abdominal wall pain may be due to a myofascial trigger point in the rectus abdominus muscle.

### **Tender Points**

#### **Definition**

Tender points are focal areas of hyperalgesia that tend to occur at muscle-tendon junctions. Tender points are differentiated from trigger points due to the absence of a taut band of muscle tissue or local hyperirritability ("jump response") when palpated.

Despite the lack of local hyperirritability or a palpable band of tissue, some practitioners have treated tender points with injections of local anesthetic, corticosteroids, or botulinum toxin, similar to the treatment of trigger points.

### **Associated Disorders**

#### **Fibromyalgia**

Fibromyalgia is a chronic condition characterized by widespread pain with hyperalgesia and allodynia. Constitutional symptoms such as fatigue, impaired cognition, and disrupted sleep can also occur.<sup>4</sup> Early diagnostic criteria for fibromyalgia (1990) included 3 or more months of widespread pain above and below the waist, on both sides of the body, and along the midline, with at least 11 of 18 specific tender points. The defined bilateral areas from the American College of Rheumatology criteria are occipital, low cervical, trapezius, supraspinatus, second rib, lateral epicondyle, gluteal, greater trochanter, and knee medial fat pad. However, 2010 diagnostic criteria from the College,

which were designed to facilitate diagnosis in a general practice setting, did not include a tender point exam but instead relied on the presence of widespread pain and other symptoms.<sup>5</sup>

## Literature Review

Evidence reviews assess the clinical evidence to determine whether the use of technology improves the net health outcome. Broadly defined, health outcomes are the length of life, quality of life, and ability to function, including benefits and harms. Every clinical condition has specific outcomes that are important to patients and managing the course of that condition. Validated outcome measures are necessary to ascertain whether a condition improves or worsens; and whether the magnitude of that change is clinically significant. The net health outcome is a balance of benefits and harms.

To assess whether the evidence is sufficient to draw conclusions about the net health outcome of technology, 2 domains are examined: the relevance, and quality and credibility. To be relevant, studies must represent one or more intended clinical use of the technology in the intended population and compare an effective and appropriate alternative at a comparable intensity. For some conditions, the alternative will be supportive care or surveillance. The quality and credibility of the evidence depend on study design and conduct, minimizing bias and confounding that can generate incorrect findings. The randomized controlled trial (RCT) is preferred to assess efficacy; however, in some circumstances, nonrandomized studies may be adequate. RCTs are rarely large enough or long enough to capture less common adverse events and long-term effects. Other types of studies can be used for these purposes and to assess generalizability to broader clinical populations and settings of clinical practice.

Promotion of greater diversity and inclusion in clinical research of historically marginalized groups (e.g., People of Color [African-American, Asian, Black, Latino and Native American]; LGBTQIA (Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, Asexual); Women; and People with Disabilities [Physical and Invisible]) allows policy populations to be more reflective of and findings more applicable to our diverse members. While we also strive to use inclusive language related to these groups in our policies, use of gender-specific nouns (e.g., women, men, sisters, etc.) will continue when reflective of language used in publications describing study populations.

## Trigger Point Injections Myofascial Pain Syndrome

### Clinical Context and Therapy Purpose

The purpose of trigger point injections in individuals who have myofascial pain syndrome is to provide a treatment option that is an alternative to or an improvement on existing therapies. The following PICO was used to select literature to inform this review.

### *Populations*

The relevant population of interest is individuals with myofascial pain syndrome. Myofascial pain syndrome is a chronic regional pain disorder caused by the activation of at least 1 trigger point in muscles, tendons, or muscle fascia. It can cause local or referred pain, tightness, tenderness, stiffness and limitation of movement, muscle weakness, and often autonomic phenomena.

### *Interventions*

The therapy being considered is trigger point injections. Trigger points are discrete, focal, hyperirritable spots within a taut band of skeletal muscle fibers that produce local and/or referred pain when stimulated. Trigger point injections with local anesthetic, saline, steroid, or botulinum toxin type A are a potential treatment for pain associated with trigger points.

### *Comparators*

The following therapies are currently being used to make decisions about trigger point injections.

Relevant comparators are pharmacologic management and physical therapy. Alternative non-pharmacologic treatment modalities for trigger point pain include manual techniques, massage, acupressure, ultrasonography, application of heat or ice, diathermy, transcutaneous electrical nerve stimulation, and spray cooling with manual stretch.

### **Outcomes**

The general outcomes of interest are symptoms, functional outcomes, quality of life, and treatment-related morbidity.

### **Study Selection Criteria**

Methodologically credible studies were selected using the following principles:

- To assess efficacy outcomes, comparative controlled prospective trials were sought, with a preference for RCTs;
- In the absence of such trials, comparative observational studies were sought, with a preference for prospective studies.
- To assess long-term outcomes and adverse events, single-arm studies that capture longer periods of follow-up and/or larger populations were sought.
- Studies with duplicative or overlapping populations were excluded.

### **Review of Evidence**

#### **Randomized Controlled Trials**

##### **Lidocaine Injection versus Physical Therapy**

An RCT by Lugo et al (2016) evaluated the efficacy of lidocaine injection and physical therapy (PT) to treat myofascial pain syndrome.<sup>6</sup> Strengths of this trial included the randomization procedures, power analysis, and assessor blinding. Patients (N=127) with shoulder girdle myofascial pain syndrome for at least 6 weeks and visual analog scale scores for pain greater than 40 mm received PT, a single injection of lidocaine, or both treatments together. The primary outcome (visual analog scale pain rating at 1 month) did not differ significantly across the 3 groups (lidocaine, 44.2; PT, 37.8; combined therapy, 40.8). Most secondary outcome measures (function, depression, quality of life) were also similar across groups.

##### **Lidocaine Injection versus a Lidocaine or Placebo Patch**

An RCT by Affaitati et al (2009) compared use of a lidocaine infiltration, lidocaine patch, or placebo patch in 60 patients being treated for myofascial pain syndrome.<sup>7</sup> Strengths of this trial included allocation concealment for the lidocaine and placebo patches, blinded evaluation, and sample size calculations for adequate power. Similar reductions in pain and pain thresholds with the 2 lidocaine treatments were reported but significantly less discomfort was associated with the lidocaine patch than with injection ( $p<.001$ ). With the lidocaine patch, pain decreased from 84.0 to 17.25; with lidocaine injection, pain decreased from 79.95 to 14.30 (baseline vs. posttreatment  $p<.001$ ; scale range, 0-100). With the placebo patch, pain on movement remained unchanged (78.35 at baseline vs. 77.50 on day 9).

##### **Lidocaine Injection versus Dry Needling or Sham Stimulation**

Couto et al (2014) reported on a sham-controlled, double-blind randomized trial of 78 patients that compared trigger point injections using lidocaine with paraspinal intramuscular stimulation, or sham stimulation.<sup>8</sup> Trial strengths included intention-to-treat analysis, adequate power, and Bonferroni correction for multiple comparisons. Lidocaine 0.2 to 0.5 mL was injected with each needle penetration when a visible local twitch response was evoked. Paraspinal dry needling was applied in the spinal segment of the nerve roots associated with the dermatome, myotome, or sclerotome where the trigger points were found. The placebo control used an electroacupuncture device with no current passing through the electrodes. At baseline, visual analog scale scores were similar across the 3 groups, with mean scores ranging from 6.59 to 6.66 out of 10. All 3 groups improved over time for the primary outcomes of pain and pain threshold. Outcomes were significantly improved for both

intervention groups than for sham, although the difference in visual analog scale scores between the lidocaine injection group and sham stimulation was only 1.01 on a 10-point scale.

Local anesthetic (n=35) injected into a trigger point was compared with dry needling (n=23) in the upper trapezius muscle in a study by Hong et al (1994).<sup>9</sup> For the lidocaine injection, a needle was inserted into the trigger point with in-and-out movement within the subcutaneous tissue (20-60 insertions), with a drop of anesthetic released each time the needle was inserted into the taut band. This procedure was followed by stretching exercises at home. Dry needling was performed in the same manner but without lidocaine. Twenty-six (74%) patients treated with local anesthetic and 15 (65%) with dry needling exhibited a local twitch response and were included in the analysis. Pain intensity at baseline, measured by a 0-to-10 numeric rating scale for pain, was similar for both groups (lidocaine, 7.88; dry needling, 7.80). All patients who had a local twitch response reported minimal-to-no pain immediately postprocedure. Two weeks posttreatment, pain intensity remained significantly lower in the lidocaine group (0.96) than in the dry needling group (4.98). Blinded evaluation found no significant differences between groups for pain threshold or range of motion.

### **Corticosteroid Injection versus Dry Needling**

Brennan et al (2017) reported on a partially blinded, noninferiority RCT comparing corticosteroid injections (n=25 hips) with dry needling (n=25 hips) for patients who had greater trochanteric pain syndrome (previously called greater trochanteric bursitis), a chronic, intermittent pain syndrome involving tenderness over the lateral hip.<sup>10</sup> The trial was powered with a planned enrollment of 50 patients, using a 2-sample *t* test for noninferiority and a noninferiority margin of 1.5. Patients were randomized to a corticosteroid injection or to a dry injection by an orthopedic surgeon or a physician assistant and followed at the provider's discretion over 6 weeks. At 6 weeks, numeric rating scale scores for pain did not differ significantly between groups (difference, -1.12; 95% confidence interval, -2.99 to 0.74). Similarly, there were no significant differences in functional outcomes or medication use.

### **Section Summary: Myofascial Pain Syndrome**

The evidence on the treatment of myofascial pain syndrome with lidocaine injections includes randomized comparisons with PT, lidocaine patches, sham stimulation, and dry needling. Lidocaine injections into trigger points were effective at improving subjective pain ratings to the same degree as PT or lidocaine patches, and slightly more effective than sham stimulation. Lidocaine injection was less effective for improving pain ratings than paraspinal dry needling in one trial and more effective than dry needling in another. In the latter trial, there was no significant benefit of lidocaine injection on objective outcome measures. The small number of trials, different comparators, and lack of consistent improvements in outcomes limit the ability to make conclusions. Further high-quality RCTs are needed to determine whether trigger point injections improve outcomes for patients with myofascial pain syndrome.

### **Complex Regional Pain Syndrome**

#### **Clinical Context and Therapy Purpose**

The purpose of trigger point injections in individuals who have complex regional pain syndrome is to provide a treatment option that is an alternative to or an improvement on existing therapies.

The following PICO was used to select literature to inform this review.

#### ***Populations***

The relevant population of interest is individuals with complex regional pain syndrome. Complex regional pain syndrome refers to a chronic and disabling condition characterized by persistent pain that is disproportionate to the extent and duration of the primary injury, and that is not restricted to the distribution of a specific peripheral nerve. Complex regional pain syndrome occurs most commonly following wrist fracture but may follow many other types of injury, even when the preceding injury is relatively minor. It may also occur when there is no known injury.

***Interventions***

The therapy being considered is trigger point injections. Trigger points are discrete, focal, hyperirritable spots within a taut band of skeletal muscle fibers that produce local and/or referred pain when stimulated. Trigger point injections with local anesthetic, saline, steroid, or botulinum toxin type A are a potential treatment for pain associated with trigger points.

***Comparators***

The following therapies are currently being used to make decisions about trigger point injections.

Relevant comparators are pharmacologic management and physical therapy. Management of complex regional pain syndrome includes oral and topical pharmacotherapy, physical therapy, psychological therapies, and interventional procedures such as regional anesthetic blocks, sympathetic blocks, or spinal cord stimulation. Amputation of the affected limb has also been performed.

***Outcomes***

The general outcomes of interest are symptoms, functional outcomes, quality of life, and treatment-related morbidity.

**Study Selection Criteria**

Methodologically credible studies were selected using the following principles:

- To assess efficacy outcomes, comparative controlled prospective trials were sought, with a preference for RCTs;
- In the absence of such trials, comparative observational studies were sought, with a preference for prospective studies.
- To assess long-term outcomes and adverse events, single-arm studies that capture longer periods of follow-up and/or larger populations were sought.
- Studies with duplicative or overlapping populations were excluded.

**Review of Evidence**

No RCTs on injections for the treatment of complex regional pain syndrome were identified. One case report (2000) described the treatment of complex regional pain syndrome with progressive trigger point manipulations, beginning with desensitization and gentle massage followed by steroid injections.<sup>11</sup> Trigger point injection for complex regional pain syndrome is also described as a treatment modality in a 2000 review.<sup>12</sup> A Cochrane review (2013) on interventions for complex regional pain syndrome included a variety of allopathic and alternative treatment approaches but not trigger point injections.<sup>2</sup>

**Section Summary: Complex Regional Pain Syndrome**

Evidence on treatment of complex regional pain syndrome with trigger point injections is very limited, with no recent literature identified for this treatment approach.

**Abdominal Wall Pain****Clinical Context and Therapy Purpose**

The purpose of trigger point injections in individuals who have abdominal wall pain is to provide a treatment option that is an alternative to or an improvement on existing therapies.

The following PICO was used to select literature to inform this review.

***Populations***

The relevant population of interest is individuals with abdominal wall pain. A source of chronic abdominal wall pain is anterior cutaneous nerve entrapment syndrome, which typically presents as sharp and focal abdominal pain, and is often found near a scar. Anterior wall pain can be

distinguished from intra-abdominal pain by documenting that pain increases with maneuvers that tense the abdominal muscles.

### ***Interventions***

The therapy being considered is trigger point injections. Trigger points are discrete, focal, hyperirritable spots within a taut band of skeletal muscle fibers that produce local and/or referred pain when stimulated. Trigger point injections with local anesthetic, saline, steroid, or botulinum toxin type A are a potential treatment for pain associated with trigger points.

### ***Comparators***

The following therapies are currently being used to make decisions about trigger point injections.

Relevant comparators are pharmacologic management and physical therapy. Alternative nonpharmacologic treatment modalities for trigger point pain include manual techniques, massage, acupressure, ultrasonography, application of heat or ice, diathermy, transcutaneous electrical nerve stimulation, and spray cooling with manual stretch.

### ***Outcomes***

The general outcomes of interest are symptoms, functional outcomes, quality of life, and treatment-related morbidity.

### **Study Selection Criteria**

Methodologically credible studies were selected using the following principles:

- To assess efficacy outcomes, comparative controlled prospective trials were sought, with a preference for RCTs;
- In the absence of such trials, comparative observational studies were sought, with a preference for prospective studies.
- To assess long-term outcomes and adverse events, single-arm studies that capture longer periods of follow-up and/or larger populations were sought.
- Studies with duplicative or overlapping populations were excluded.

### **Review of Evidence**

#### **Systematic Review**

Oor et al (2016) reported on a systematic review of therapies for abdominal cutaneous nerve entrapment syndrome.<sup>13</sup> Seven studies met reviewers' inclusion criteria, 4 (n=179 patients) of which evaluated treatment with trigger point injections and 4 of which evaluated treatment with anterior neurectomy (1 study included patients in both groups). All studies that evaluated trigger points injections were case series or retrospective cohorts, in which 70% to 100% of patients reported improvements in pain in the short term.

#### **Randomized Controlled Trial**

##### **Lidocaine Injection versus Ischemic Compression Therapy**

Montenegro et al (2015) published an RCT with 30 women who had chronic pelvic pain with abdominal wall trigger points.<sup>14</sup> Patients were assigned to lidocaine injection into a trigger point or ischemic compression using PT; both treatments were administered once a week for 4 weeks. The primary outcome, assessed in blinded fashion, was the clinical response rate, defined as a reduction of at least 50% in visual analog scale score or a significant subjective impact on activities of daily living. Secondary outcomes were the proportion of patients who experienced pain relief, pain threshold, and pain tolerance on the trigger point. Clinical response rates and pain relief were significantly better in the injection group at 1, 4, and 12 weeks posttreatment. At 1 and 4 weeks after treatment, the clinical response rate was 80% for lidocaine injection and 40% for ischemic compression ( $p=.018$ ). At 12 weeks, clinical response rates were 73.3% for lidocaine injection and 13.3% for ischemic compression ( $p<.001$ ). Power analysis had indicated that 60 subjects would be needed,



but after interim analysis, the trial was discontinued due to the lower efficacy of ischemic compression.

**Section Summary: Abdominal Wall Pain**

A single RCT was identified that evaluated lidocaine injection in women who had chronic pelvic pain with abdominal wall trigger points. Additional study in a larger population is needed to permit greater certainty on the efficacy of this treatment approach.

**Tender Point Injections****Fibromyalgia****Clinical Context and Therapy Purpose**

The purpose of tender point injections in individuals who have fibromyalgia is to provide a treatment option that is an alternative to or an improvement on existing therapies.

The following PICO was used to select literature to inform this review.

***Populations***

The relevant population of interest is individuals with fibromyalgia. Fibromyalgia is a chronic condition characterized by widespread pain with hyperalgesia and allodynia. Constitutional symptoms such as fatigue, impaired cognition, and disrupted sleep can also occur.

***Interventions***

The therapy being considered is tender point injections. Tender points are focal areas of hyperalgesia that tend to occur at muscle-tendon junctions. Tender points are differentiated from trigger points due to the absence of a taut band of muscle tissue or local hyperirritability ("jump response") when palpated.

Despite the lack of local hyperirritability or a palpable band of tissue, some practitioners have treated tender points with injections of local anesthetic, corticosteroids, or botulinum toxin, similar to the treatment of trigger points.

***Comparators***

The following therapies are currently being used to make decisions about tender point injections.

Relevant comparators are pharmacologic management, physical therapy, and multidisciplinary therapy.

***Outcomes***

The general outcomes of interest are symptoms, functional outcomes, quality of life, and treatment related morbidity.

**Study Selection Criteria**

Methodologically credible studies were selected using the following principles:

- To assess efficacy outcomes, comparative controlled prospective trials were sought, with a preference for RCTs;
- In the absence of such trials, comparative observational studies were sought, with a preference for prospective studies.
- To assess long-term outcomes and adverse events, single-arm studies that capture longer periods of follow-up and/or larger populations were sought.
- Studies with duplicative or overlapping populations were excluded.

## Review of Evidence

### Randomized Controlled Trial

Staud et al (2014) reported on a double-blinded RCT evaluating 62 patients with fibromyalgia who received injections of lidocaine (100 or 200 mg) or saline.<sup>15</sup> Each patient received 4 injections containing 5 mL of saline or lidocaine into the trapezius (shoulder) and gluteal (low back) muscles. Ratings of mechanical and heat pulses to the shoulders, arms, back, and legs were reduced with lidocaine. However, overall clinical fibromyalgia pain decreased by a similar amount (overall visual analog scale score decreased  $\approx 38\%$ ) in all 3 groups, suggesting a large placebo effect of the injection with no additional benefit of the anesthetic. Patients' estimates of receiving lidocaine or placebo were similar across groups, demonstrating successful allocation concealment in this double-blinded trial.

### Section Summary: Fibromyalgia

A single RCT was identified that evaluated the efficacy of lidocaine injections in patients with fibromyalgia. It found a strong placebo effect, with lidocaine injection not being more effective than saline at reducing fibromyalgia pain.

### Supplemental Information

The purpose of the following information is to provide reference material. Inclusion does not imply endorsement or alignment with the evidence review conclusions.

### Clinical Input From Physician Specialty Societies And Academic Medical Centers

While the various physician specialty societies and academic medical centers may collaborate with and make recommendations during this process, through the provision of appropriate reviewers, input received does not represent an endorsement or position statement by the physician specialty societies or academic medical centers, unless otherwise noted.

In response to requests, input was received from 6 specialty societies (10 reviewers) and 3 academic medical centers while this policy was under review in 2016. Input focused on trigger point injections for myofascial pain syndrome. There was general consensus that trigger point injections are considered medically necessary for select patients with myofascial pain syndrome who have failed conservative therapy when administered as part of a comprehensive therapy program. Input concurred that ultrasound guidance was investigational.

### Practice Guidelines and Position Statements

Guidelines or position statements will be considered for inclusion in 'Supplemental Information' if they were issued by, or jointly by, a US professional society, an international society with US representation, or National Institute for Health and Care Excellence (NICE). Priority will be given to guidelines that are informed by a systematic review, include strength of evidence ratings, and include a description of management of conflict of interest.

### American Society of Anesthesiologists and the American Society of Regional Anesthesia and Pain Medicine

In 2010, the American Society of Anesthesiologists and the American Society of Regional Anesthesia and Pain Medicine published joint practice guidelines on chronic pain management.<sup>16</sup> The 2 Societies found insufficient evidence to evaluate the efficacy of trigger point injections to provide pain relief compared with sham injections (category D evidence). Based on observational findings, the societies concluded that "trigger point injections may be considered for treatment of patients with myofascial pain as part of a multimodal approach to pain management."

### U.S. Preventive Services Task Force Recommendations

Not applicable.

**Medicare National Coverage**

There is no national coverage determination.

**Ongoing and Unpublished Clinical Trials**

A search of [ClinicalTrials.gov](https://clinicaltrials.gov) in February 2023 did not identify any ongoing or unpublished trials that would likely influence this review.

**References**

1. Alvarez DJ, Rockwell PG. Trigger points: diagnosis and management. *Am Fam Physician*. Feb 15 2002; 65(4): 653-60. PMID 11871683
2. O'Connell NE, Wand BM, McAuley J, et al. Interventions for treating pain and disability in adults with complex regional pain syndrome. *Cochrane Database Syst Rev*. Apr 30 2013; 2013(4): CD009416. PMID 23633371
3. Alnahhas MF, Oxentenko SC, Locke GR, et al. Outcomes of Ultrasound-Guided Trigger Point Injection for Abdominal Wall Pain. *Dig Dis Sci*. Feb 2016; 61(2): 572-7. PMID 26320087
4. Sumpton JE, Moulin DE. Fibromyalgia. *Handb Clin Neurol*. 2014; 119: 513-27. PMID 24365316
5. Wolfe F, Clauw DJ, Fitzcharles MA, et al. The American College of Rheumatology preliminary diagnostic criteria for fibromyalgia and measurement of symptom severity. *Arthritis Care Res (Hoboken)*. May 2010; 62(5): 600-10. PMID 20461783
6. Lugo LH, García HI, Rogers HL, et al. Treatment of myofascial pain syndrome with lidocaine injection and physical therapy, alone or in combination: a single blind, randomized, controlled clinical trial. *BMC Musculoskelet Disord*. Feb 24 2016; 17: 101. PMID 26911981
7. Affaitati G, Fabrizio A, Savini A, et al. A randomized, controlled study comparing a lidocaine patch, a placebo patch, and anesthetic injection for treatment of trigger points in patients with myofascial pain syndrome: evaluation of pain and somatic pain thresholds. *Clin Ther*. Apr 2009; 31(4): 705-20. PMID 19446144
8. Couto C, de Souza IC, Torres IL, et al. Paraspinal stimulation combined with trigger point needling and needle rotation for the treatment of myofascial pain: a randomized sham-controlled clinical trial. *Clin J Pain*. Mar 2014; 30(3): 214-23. PMID 23629597
9. Hong CZ. Lidocaine injection versus dry needling to myofascial trigger point. The importance of the local twitch response. *Am J Phys Med Rehabil*. 1994; 73(4): 256-63. PMID 8043247
10. Brennan KL, Allen BC, Maldonado YM. Dry Needling Versus Cortisone Injection in the Treatment of Greater Trochanteric Pain Syndrome: A Noninferiority Randomized Clinical Trial. *J Orthop Sports Phys Ther*. Apr 2017; 47(4): 232-239. PMID 28257614
11. Hong CZ. Specific sequential myofascial trigger point therapy in the treatment of a patient with myofascial pain syndrome associated with reflex sympathetic dystrophy. *Australas Chiropr Osteopathy*. Mar 2000; 9(1): 7-11. PMID 17987165
12. Dunn DG. Chronic regional pain syndrome, type 1: Part II. *AORN J*. Oct 2000; 72(4): 643-51, 653; quiz 654, 656-8, 661-2. PMID 11076283
13. Oor JE, Ünlü Ç, Hazebroek EJ. A systematic review of the treatment for abdominal cutaneous nerve entrapment syndrome. *Am J Surg*. Jul 2016; 212(1): 165-74. PMID 26945611
14. Montenegro ML, Braz CA, Rosa-e-Silva JC, et al. Anaesthetic injection versus ischemic compression for the pain relief of abdominal wall trigger points in women with chronic pelvic pain. *BMC Anesthesiol*. Dec 01 2015; 15: 175. PMID 26628263
15. Staud R, Weyl EE, Bartley E, et al. Analgesic and anti-hyperalgesic effects of muscle injections with lidocaine or saline in patients with fibromyalgia syndrome. *Eur J Pain*. Jul 2014; 18(6): 803-12. PMID 24193993
16. 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

## Documentation for Clinical Review

**Please provide the following documentation:**

- History and physical and/or consultation notes including:
  - Conservative treatment(s), duration, and patient response
  - Diagnostic evaluation
  - Functional limitation(s)
  - Distribution of pain
  - Physical exam noting areas of tenderness and any other abnormal findings
- Prior procedure(s) and response (if applicable)
- Radiology report(s) (if applicable)
- Electrodiagnostic studies (if applicable)

**Post Service (in addition to the above, please include the following):**

- Procedure report(s)

## Coding

*This Policy relates only to the services or supplies described herein. Benefits may vary according to product design; therefore, contract language should be reviewed before applying the terms of the Policy.*

*The following codes are included below for informational purposes. Inclusion or exclusion of a code(s) does not constitute or imply member coverage or provider reimbursement policy. Policy Statements are intended to provide member coverage information and may include the use of some codes for clarity. The Policy Guidelines section may also provide additional information for how to interpret the Policy Statements and to provide coding guidance in some cases.*

Type	Code	Description
CPT®	20552	Injection(s); single or multiple trigger point(s), 1 or 2 muscle(s)
	20553	Injection(s); single or multiple trigger point(s), 3 or more muscles
	76942	Ultrasonic guidance for needle placement (e.g., biopsy, aspiration, injection, localization device), imaging supervision and interpretation
	77002	Fluoroscopic guidance for needle placement (e.g., biopsy, aspiration, injection, localization device) (List separately in addition to code for primary procedure)
	77012	Computed tomography guidance for needle placement (e.g., biopsy, aspiration, injection, localization device), radiological supervision and interpretation
	77021	Magnetic resonance imaging guidance for needle placement (e.g., for biopsy, needle aspiration, injection, or placement of localization device) radiological supervision and interpretation
HCPCS	None	

## Policy History

This section provides a chronological history of the activities, updates and changes that have occurred with this Medical Policy.

Effective Date	Action
11/01/2016	BCBSA medical policy adoption

Effective Date	Action
06/01/2017	Policy revision without position change
06/01/2018	Policy revision without position change
07/01/2019	Policy revision without position change
07/01/2020	Annual review. No change to policy statement. Literature review updated.
06/01/2021	Annual review. No change to policy statement. Literature review updated.
06/01/2022	Annual review. No change to policy statement. Literature review updated.
06/01/2023	Annual review. No change to policy statement. Policy guidelines and literature updated.

## Definitions of Decision Determinations

**Medically Necessary:** Services that are Medically Necessary include only those which have been established as safe and effective, are furnished under generally accepted professional standards to treat illness, injury or medical condition, and which, as determined by Blue Shield, are: (a) consistent with Blue Shield medical policy; (b) consistent with the symptoms or diagnosis; (c) not furnished primarily for the convenience of the patient, the attending Physician or other provider; (d) furnished at the most appropriate level which can be provided safely and effectively to the patient; and (e) not more costly than an alternative service or sequence of services at least as likely to produce equivalent therapeutic or diagnostic results as to the diagnosis or treatment of the Member's illness, injury, or disease.

**Investigational/Experimental:** A treatment, procedure, or drug is investigational when it has not been recognized as safe and effective for use in treating the particular condition in accordance with generally accepted professional medical standards. This includes services where approval by the federal or state governmental is required prior to use, but has not yet been granted.

**Split Evaluation:** Blue Shield of California/Blue Shield of California Life & Health Insurance Company (Blue Shield) policy review can result in a split evaluation, where a treatment, procedure, or drug will be considered to be investigational for certain indications or conditions, but will be deemed safe and effective for other indications or conditions, and therefore potentially medically necessary in those instances.

## Prior Authorization Requirements and Feedback (as applicable to your plan)

Within five days before the actual date of service, the provider must confirm with Blue Shield that the member's health plan coverage is still in effect. Blue Shield reserves the right to revoke an authorization prior to services being rendered based on cancellation of the member's eligibility. Final determination of benefits will be made after review of the claim for limitations or exclusions.

Questions regarding the applicability of this policy should be directed to the Prior Authorization Department at (800) 541-6652, or the Transplant Case Management Department at (800) 637-2066 ext. 3507708 or visit the provider portal at [www.blueshieldca.com/provider](http://www.blueshieldca.com/provider).

We are interested in receiving feedback relative to developing, adopting, and reviewing criteria for medical policy. Any licensed practitioner who is contracted with Blue Shield of California or Blue Shield of California Promise Health Plan is welcome to provide comments, suggestions, or concerns. Our internal policy committees will receive and take your comments into consideration.

For utilization and medical policy feedback, please send comments to: [MedPolicy@blueshieldca.com](mailto:MedPolicy@blueshieldca.com)

*Disclaimer: This medical policy is a guide in evaluating the medical necessity of a particular service or treatment. Blue Shield of California may consider published peer-reviewed scientific literature, national guidelines, and local*

*standards of practice in developing its medical policy. Federal and state law, as well as contract language, including definitions and specific contract provisions/exclusions, take precedence over medical policy and must be considered first in determining covered services. Member contracts may differ in their benefits. Blue Shield reserves the right to review and update policies as appropriate.*

## Appendix A

## POLICY STATEMENT

## BEFORE

**Red font: Verbiage removed**

## Trigger Point and Tender Point Injections 2.01.103

**Policy Statement:**

Trigger point injections with anesthetic and/or corticosteroid may be considered **medically necessary** for the treatment of myofascial pain syndrome when **all** of the following criteria have been met:

- I. Conservative therapy (e.g., physical therapy, active exercises, ultrasound, heating or cooling, massage, activity modification, or pharmacotherapy) for 6 weeks fails or is not feasible
- II. No more than 4 injections are given in a 12-month period (combined total use of either CPT code 20552 or 20553, see Policy Guidelines section)
- III. There is a regional pain complaint in the expected distribution of referral pain from a trigger point
- IV. There is restricted range of motion
- V. There is spot tenderness in a palpable taut band in a muscle
- VI. Trigger point injections are provided as a component of a comprehensive therapy program

Trigger point and tender point injections are considered **investigational** for all other indications, including the following:

- I. Abdominal wall pain
- II. Complex regional pain syndrome
- III. Fibromyalgia
- IV. Treatment of myofascial pain syndrome not meeting the medical necessity criteria

Ultrasound and other imaging guidance of trigger point injections are considered **investigational**.

## AFTER

**Blue font: Verbiage Changes/Additions**

## Trigger Point and Tender Point Injections 2.01.103

**Policy Statement:**

- I. Trigger point injections with anesthetic and/or corticosteroid may be considered **medically necessary** for the treatment of myofascial pain syndrome when **all** of the following criteria have been met:

- A. Conservative therapy (e.g., physical therapy, active exercises, ultrasound, heating or cooling, massage, activity modification, or pharmacotherapy) for 6 weeks fails or is not feasible
- B. No more than 4 injections are given in a 12-month period (combined total use of either CPT code 20552 or 20553, see Policy Guidelines section)
- C. There is a regional pain complaint in the expected distribution of referral pain from a trigger point
- D. There is restricted range of motion
- E. There is spot tenderness in a palpable taut band in a muscle
- F. Trigger point injections are provided as a component of a comprehensive therapy program

- II. Trigger point and tender point injections are considered **investigational** for all other indications, including the following:

- A. Abdominal wall pain
- B. Complex regional pain syndrome
- C. Fibromyalgia
- D. Treatment of myofascial pain syndrome not meeting the criteria above

- III. Ultrasound and other imaging guidance of trigger point injections are considered **investigational**.