



Kansas City

An Independent Licensee of the Blue Cross and Blue Shield Association

# Trigger Point and Tender Point Injections

**Policy Number:** 2.01.103

**Last Review:** 10/2018

**Origination:** 10/2016

**Next Review:** 10/2019

## **Policy**

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Blue Cross and Blue Shield of Kansas City (Blue KC) will provide coverage for Trigger Point and Tender Point Injections when it is determined to be medically necessary because the criteria shown below are met.

## **When Policy Topic is covered**

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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:

- There is a regional pain complaint in the expected distribution of referral pain from a trigger point, AND
- There is spot tenderness in a palpable taut band in a muscle, AND
- There is restricted range of motion, AND
- Conservative therapy (eg, physical therapy, active exercises, ultrasound, heating or cooling, massage, activity modification, or pharmacotherapy) for 6 weeks fails or is not feasible, AND
- Trigger point injections are provided as a component of a comprehensive therapy program, AND
- No more than 4 injections are given in a 12-month period.

## **When Policy Topic is not covered**

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Trigger point and tender point injections are considered **investigational** for all other indications, including the treatment of myofascial pain syndrome not meeting the criteria above, complex regional pain syndrome, abdominal wall pain, and fibromyalgia.

Ultrasound guidance of trigger point injections is considered **investigational**.

## **Considerations**

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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 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 (eg, biopsy, aspiration, injection, localization device), imaging supervision and interpretation

77002 Fluoroscopic guidance for needle placement (eg, biopsy, aspiration, injection, localization device) (List separately in addition to code for primary procedure)

77021 Magnetic resonance guidance for needle placement (eg, for biopsy, needle aspiration, injection, or placement of localization device) radiological supervision and interpretation.

## Description of Procedure or Service

Populations	Interventions	Comparators	Outcomes
Individuals: <ul style="list-style-type: none"> <li>With myofascial pain syndrome</li> </ul>	Interventions of interest are: <ul style="list-style-type: none"> <li>Trigger point injections</li> </ul>	Comparators of interest are: <ul style="list-style-type: none"> <li>Pharmacologic management</li> <li>Physical therapy</li> </ul>	Relevant outcomes include: <ul style="list-style-type: none"> <li>Symptoms</li> <li>Functional outcomes</li> <li>Quality of life</li> <li>Treatment-related morbidity</li> </ul>
Individuals: <ul style="list-style-type: none"> <li>With complex regional pain syndrome</li> </ul>	Interventions of interest are: <ul style="list-style-type: none"> <li>Trigger point injections</li> </ul>	Comparators of interest are: <ul style="list-style-type: none"> <li>Pharmacologic management</li> <li>Physical therapy</li> </ul>	Relevant outcomes include: <ul style="list-style-type: none"> <li>Symptoms</li> <li>Functional outcomes</li> <li>Quality of life</li> <li>Treatment-related morbidity</li> </ul>
Individuals: <ul style="list-style-type: none"> <li>With abdominal wall pain</li> </ul>	Interventions of interest are: <ul style="list-style-type: none"> <li>Trigger point injections</li> </ul>	Comparators of interest are: <ul style="list-style-type: none"> <li>Pharmacologic management</li> <li>Physical therapy</li> </ul>	Relevant outcomes include: <ul style="list-style-type: none"> <li>Symptoms</li> <li>Functional outcomes</li> <li>Quality of life</li> <li>Treatment-related morbidity</li> </ul>
Individuals: <ul style="list-style-type: none"> <li>With fibromyalgia</li> </ul>	Interventions of interest are: <ul style="list-style-type: none"> <li>Tender point injections</li> </ul>	Comparators of interest are: <ul style="list-style-type: none"> <li>Pharmacologic management</li> <li>Physical therapy</li> <li>Multidisciplinary therapy</li> </ul>	Relevant outcomes include: <ul style="list-style-type: none"> <li>Symptoms</li> <li>Functional outcomes</li> <li>Quality of life</li> <li>Treatment-related morbidity</li> </ul>

## Summary

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.

For individuals who have myofascial pain syndrome who receive trigger point injections, the evidence includes several randomized controlled trials (RCTs) and a systematic review of RCTs. Relevant outcomes are symptoms, functional outcomes, quality of life, and treatment-related morbidity. Lidocaine injections have been compared with physical therapy, lidocaine patches, sham stimulation,

and dry needling. Some trials have reported that injecting lidocaine into trigger points improve subjective pain ratings to the same degree as physical therapy or lidocaine patches, but only slightly more than sham stimulation. Other trials have found that lidocaine injection was superior to dry needling on subjective pain ratings, but there was no significant benefit with lidocaine injection assessed on objective outcome measures. These results suggest a strong placebo effect of the treatment. The evidence is insufficient to determine the effects of the technology on health outcomes.

Clinical input obtained in 2016 considered trigger point injections to be medically necessary for select patients with myofascial pain syndrome who have failed conservative therapy, when administered as part of a comprehensive therapy program.

For individuals who have complex regional pain syndrome who receive trigger point injections, the evidence includes case series. Relevant outcomes are symptoms, functional outcomes, quality of life, and treatment-related morbidity. Evidence on treatment of complex regional pain syndrome with trigger point injections is very limited, with only case series published and no recent literature identified for this treatment approach. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals who have abdominal wall pain who receive trigger point injections, the evidence includes an RCT. Relevant outcomes are symptoms, functional outcomes, quality of life, and treatment-related morbidity. The single RCT evaluated lidocaine injections in women who had chronic pelvic pain and abdominal wall trigger points. Additional study in a larger population is needed to permit greater certainty about the efficacy of this treatment approach. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals who have fibromyalgia who receive tender point injections, the evidence includes an RCT. Relevant outcomes are symptoms, functional outcomes, quality of life, and treatment-related morbidity. The single RCT identified evaluated the efficacy of lidocaine injections in patients with fibromyalgia. It found a strong placebo effect, with lidocaine injection being not more effective than saline at reducing fibromyalgia pain. The evidence is insufficient to determine the effects of the technology on health outcomes.

## **Background**

### **Trigger Points**

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.<sup>1</sup>

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>2</sup>

### **Myofascial Pain Syndrome**

Myofascial pain syndrome is a chronic regional pain disorder caused by the activation of at least 1 active trigger point in a 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 is variable. Some individuals will have few trigger points with mild symptoms and no functional impairment, while others will have multiple satellite trigger points, pain that is widespread and severe, 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, or 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 (CRPS; previously known as reflex 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 that is not restricted to the distribution of a specific peripheral nerve.<sup>3</sup> CRPS occurs most commonly following wrist fracture, but may follow many other types of injury, even when the preceding injury is relatively minor. CRPS may also occur when there is no known injury. CRPS 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 CRPS 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 it results from the entrapment and ischemia of an anterior cutaneous branch of a thoracic nerve as it passes through the rectus abdominus muscle.<sup>4</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**

There are focal areas of hyperalgesia, or tender points, which 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.

## **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>5</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 (ACR) criteria are occipital, low cervical, trapezius, supraspinatus, second rib, lateral epicondyle, gluteal, greater trochanter, and knee medial fat pad. However, 2010 diagnostic criteria from ACR, 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>6</sup>

## **Rationale**

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This evidence review was created in August 2016 and has been updated regularly with searches of the MEDLINE database. The most recent literature update was performed through February 5, 2018.

Evidence reviews assess the clinical evidence to determine whether the use of a technology improves the net health outcome. Broadly defined, health outcomes are 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 to 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 a technology, 2 domains are examined: the relevance and the quality and credibility. To be relevant, studies must represent one or more intended clinical uses 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.

## **Trigger Point injections**

### **Myofascial Pain Syndrome**

The evidence on trigger point injections for myofascial pain syndrome includes RCTs.

#### ***Randomized Controlled Trials***

##### *Lidocaine Injection vs 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>7</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 (VAS) scores for pain greater than 40 mm received PT, a single injection of lidocaine, or both treatments together. The primary outcome (VAS 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 vs 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>8</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 ( $p < 0.001$ ). 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  $p < 0.001$ ; scale range, 0-100). With the placebo patch, pain on movement remained unchanged (78.35 at baseline vs 77.50 at day 9).

##### *Lidocaine Injection vs 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>9</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, VAS 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 VAS 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>10</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 vs 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>11</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 [CI], -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 1 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**

No RCTs on injections for the treatment of complex regional pain syndrome (CRPS) were identified. One case report (2000) described the treatment of CRPS with progressive trigger point manipulations, beginning with desensitization and gentle massage followed by steroid injections.<sup>12</sup> Trigger point injection for CRPS is also described as a treatment modality in a 2000 review.<sup>13</sup> A Cochrane review (2013) on interventions for CRPS included a variety of allopathic and alternative treatment approaches, but not trigger point injections.<sup>3</sup>

#### ***Section Summary: Complex Regional Pain Syndrome***

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

### **Abdominal Wall Pain**

Oor et al (2016) reported on a systematic review of therapies for abdominal cutaneous nerve entrapment syndrome.<sup>14</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 point injections were case series or retrospective cohorts, in which 70% to 100% of patients reported improvements in pain in the short term.

#### ***Lidocaine Injection vs Ischemic Compression Therapy***

Montenegro et al (2015) published an RCT with 30 women who had chronic pelvic pain with abdominal wall trigger points.<sup>15</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 VAS 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 ( $p=0.018$ ). At 12 weeks, clinical response rates were 73.3% for lidocaine injection and 13.3% for ischemic compression ( $p<0.001$ ). 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

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>16</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 VAS 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 being not more effective than saline at reducing fibromyalgia pain.

### **Summary of Evidence**

For individuals who have myofascial pain syndrome who receive trigger point injections, the evidence includes several RCTs and a systematic review of RCTs. Relevant outcomes are symptoms, functional outcomes, quality of life, and treatment-related morbidity. Lidocaine injections have been compared with physical therapy, lidocaine patches, sham stimulation, and dry needling. Some trials have reported that injecting lidocaine into trigger points improve subjective pain ratings to the same degree as physical therapy or lidocaine patches, but only slightly more than sham stimulation. Other trials have found that lidocaine injection was superior to dry needling on subjective pain ratings, but there was no significant benefit with lidocaine injection assessed on objective outcome measures. These results suggest a strong placebo effect of the treatment. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals who have complex regional pain syndrome who receive trigger point injections, the evidence includes case series. Relevant outcomes are symptoms, functional outcomes, quality of life, and treatment-related morbidity. Evidence on treatment of complex regional pain syndrome with trigger point injections is very limited, with only case series published and no recent literature identified for this treatment approach. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals who have abdominal wall pain who receive trigger point injections, the evidence includes an RCT. Relevant outcomes are symptoms, functional outcomes, quality of life, and treatment-related morbidity. The single RCT evaluated lidocaine injections in women who had chronic pelvic pain and abdominal wall trigger points. Additional study in a larger population is needed to permit greater certainty about the efficacy of this treatment approach. The

evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals who have fibromyalgia who receive tender point injections, the evidence includes an RCT. Relevant outcomes are symptoms, functional outcomes, quality of life, and treatment-related morbidity. The single RCT identified evaluated the efficacy of lidocaine injections in patients with fibromyalgia. It found a strong placebo effect, with lidocaine injection being not more effective than saline at reducing fibromyalgia pain. The evidence is insufficient to determine the effects of the technology on health outcomes.

## **Supplemental Information**

### **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**

The American Society of Anesthesiologists and the American Society of Regional Anesthesia and Pain Medicine published joint practice guidelines on chronic pain management in 2010.<sup>17</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. In the absence of a national coverage determination, coverage decisions are left to the discretion of local Medicare carriers. A number of local Medicare carriers have positive coverage decisions for trigger point injections. An example would include Novitas Solutions.<sup>18</sup>

## Ongoing and Unpublished Clinical Trials

Some currently unpublished trials that might influence this review are listed in Table 1.

**Table 1. Summary of Key Trials**

NCT No.	Trial Name	Planned Enrollment	Completion Date
<b>Unpublished</b>			
<b>NCT02120261</b>	Using Saline for Myofascial Pain Syndromes (USAMPS)	51	Nov 2016 (terminated)
<b>NCT02748395</b>	Lidocaine and Triamcinolone vs Saline Trigger Point Injection for Treatment of Chronic Abdominal Wall Pain	0	Dec 2016 (withdrawn)
<b>NCT01808586</b>	Facet Versus Trigger Point Injection for Management of Chronic Muscular Neck Pain: A Randomized Clinical Trial and Creation of a Clinical Prediction Algorithm	43	Dec 2016 (unknown)

NCT: national clinical trial.

<sup>a</sup> Denotes industry-sponsored or cosponsored trial.

### References

1. American Physical Therapy Association (APTA). Description of Dry Needling in Clinical Practice: An Educational Resource Paper. 2013; <http://www.apta.org/StateIssues/DryNeedling/ClinicalPracticeResourcePaper/>. Accessed March 6, 2018.
2. Alvarez DJ, Rockwell PG. Trigger points: diagnosis and management. *Am Fam Physician*. Feb 15 2002;65(4):653-660. PMID 11871683
3. 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;4(4):CD009416. PMID 23633371
4. Alnahhas MF, Oxentenko SC, Locke GR, 3rd, et al. Outcomes of ultrasound-guided trigger point injection for abdominal wall pain. *Dig Dis Sci*. Feb 2016;61(2):572-577. PMID 26320087
5. Sumpton JE, Moulin DE. Fibromyalgia. *Handb Clin Neurol*. Dec 2014;119:513-527. PMID 24365316
6. 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):600-610. PMID 20461783
7. Lugo LH, Garcia 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(1):101. PMID 26911981
8. 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):705-720. PMID 19446144
9. 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):214-223. PMID 23629597
10. Hong CZ. Lidocaine injection versus dry needling to myofascial trigger point. The importance of the local twitch response. *Am J Phys Med Rehabil*. Jul-Aug 1994;73(4):256-263. PMID 8043247
11. 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
12. 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

13. Dunn DG. Chronic regional pain syndrome, type 1: Part II. AORN J. Oct 2000;72(4):643-651, 653; quiz 654, 656-648, 661-642. PMID 11076283
14. Oor JE, Unlu C, Hazebroek EJ. A systematic review of the treatment for abdominal cutaneous nerve entrapment syndrome. Am J Surg. Jul 2016;212(1):165-174. PMID 26945611
15. 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 1 2015;15:175. PMID 26628263
16. 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):803-812. PMID 24193993
17. American Society of Anesthesiologists Task Force on Chronic Pain Management, American Society of Regional Anesthesia and Pain Medicine. 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):810-833. PMID 20124882
18. Novitas Solutions Inc. FUTURE Local Coverage Determination (LCD): Trigger Point Injections (L35010). 2015; <http://epipg.com/wp-content/uploads/2016/04/Trigger-Point-Injections-ICD-10.pdf>. Accessed April 4, 2018.

## **Billing Coding/Physician Documentation Information**

- 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

### ICD-10 Codes

- M79.1** Myalgia  
**M79.10** Myalgia, unspecified site  
**M79.11** Myalgia of mastication muscle  
**M79.12** Myalgia of auxiliary muscles, head and neck  
**M79.18** Myalgia, other site

## **Additional Policy Key Words**

N/A

## **Policy Implementation/Update Information**

- 10/1/16 New Policy. Trigger point injections considered medically necessary for myofascial pain under specified conditions; trigger point and tender point injections are investigational for all other conditions.
- 4/1/17 Policy statement updated to state that imaging in addition to ultrasound is considered investigational; policy statements otherwise unchanged.
- 10/1/17 No policy statement changes.
- 10/1/18 No policy statement changes.

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