Clinical Policy Title: Spine pain — trigger point injections

Clinical Policy Number: 03.03.05

Effective Date: September 1, 2013
Initial Review Date: December 10, 2013
Most Recent Review Date: February 6, 2018
Next Review Date: February 2019

Related policies:

CP# 03.03.01 Spinal cord stimulators for chronic pain
CP# 03.02.02 Radiofrequency ablation treatment for spine pain
CP# 03.03.03 Spinal surgeries
CP# 03.03.04 Spine pain — epidural steroid injection
CP# 03.02.07 Spine pain — facet joint injection

ABOUT THIS POLICY: AmeriHealth Caritas has developed clinical policies to assist with making coverage determinations. AmeriHealth Caritas’ clinical policies are based on guidelines from established industry sources, such as the Centers for Medicare & Medicaid Services (CMS), state regulatory agencies, the American Medical Association (AMA), medical specialty professional societies, and peer-reviewed professional literature. These clinical policies along with other sources, such as plan benefits and state and federal laws and regulatory requirements, including any state- or plan-specific definition of “medically necessary,” and the specific facts of the particular situation are considered by AmeriHealth Caritas when making coverage determinations. In the event of conflict between this clinical policy and plan benefits and/or state or federal laws and/or regulatory requirements, the plan benefits and/or state and federal laws and/or regulatory requirements shall control. AmeriHealth Caritas’ clinical policies are for informational purposes only and not intended as medical advice or to direct treatment. Physicians and other health care providers are solely responsible for the treatment decisions for their patients. AmeriHealth Caritas’ clinical policies are reflective of evidence-based medicine at the time of review. As medical science evolves, AmeriHealth Caritas will update its clinical policies as necessary. AmeriHealth Caritas’ clinical policies are not guarantees of payment.

Coverage policy

AmeriHealth Caritas considers the use of the trigger point injections of local anesthetics, alone or in combination with corticosteroids, for the treatment of spine pain to be clinically proven and, therefore, medically necessary, as part of a multimodal approach to pain management when the following criteria are met (Manchikanti, 2001; Hayes, 2009; ASA/ASRTPM, 2010; ICSI, 2013):

1. Trigger points have been identified, and a comprehensive pain evaluation and treatment plan has been developed by a qualified specialist trained in administering trigger point injections.
2. Noninvasive medical management (e.g., exercise; physical therapy; passive modalities such as ice and heat; massage; and medications such as oral analgesia, muscle relaxants, and tricyclic antidepressants) has been unsuccessful.
2. The frequency of TPIs is two months or longer between each injection.

3. The injections should only be repeated as necessary if the medical necessity criteria above are achieved to a maximum of six treatments per rolling 12-month period, provided there is documented evidence of functional improvement after the TPI and documented evidence of decreased use of pain medications after the injections.

4. Re-evaluation of the diagnosis is recommended for patients who fail to improve after a series of three trigger point injections.

**Limitations:**

AmeriHealth Caritas considers any of the following to be investigational and/or experimental:

- Trigger point injections for treatment of fibromyalgia without a myofascial pain component characterized by local tenderness over taut muscle bands.
- Dry needle stimulation of trigger points.
- Trigger point injections with saline or glucose.
- Use of Botox® over trigger point injections.
- Trigger point injections for non-specific acute or chronic low back pain.
- Trigger point injections performed beyond eight months after initiation of treatment without a documented re-evaluation of the member’s complaint.

**Alternative covered services:**

- Pharmacotherapy (e.g., non-narcotic analgesics and non-steroidal anti-inflammatory drugs [NSAIDs]).
- Physical therapy, osteopathic manipulation, chiropractic manipulation.
- Medications, such as anti-inflammatory or analgesic drugs, laminectomy, and trigger point or epidural injections.
- Surgical intervention (see policy 03.03.03 on spinal surgeries).

**Background**

Back pain is one of the most common causes of disability and pain. One-fourth of the adult U.S. population reported back pain lasting at least one full day in the past quarter (Deyo, 2006). This was a similar incidence as had been reported in a study performed in the 1990s. The incidence and severity was greater in populations with lower educational levels. Other estimates are that up to 80 percent of the U.S. population will experience back pain at some point during their lives.

The incidence of chronic back pain increases with age and with poverty. Fortunately, the majority of persons from all demographic backgrounds recover from the acute episodes. But some 20 percent of
members will have recurrence within a year. There has been a significant increase in costs for low back pain, as well as a significant increase in diagnostic and therapeutic options available to patients with low back pain.

Guidelines from medical professional societies and studies from the peer-reviewed medical literature indicate many of the diagnostic and therapeutic services provided have evidence of effectiveness, while other services have less evidence of effectiveness and may be harmful. This policy reviews the use of trigger point injections in the treatment of spine pain.

Trigger point injections are the injection of local anesthetics or anti-inflammatory medications into myofascial trigger points. Trigger points are self-sustaining irritative foci that occur in skeletal muscle in response to strain, as well as mechanical overload phenomena. These trigger points produce a referred pain pattern characteristic for the individual involved muscle.

Trigger point injections are an integral part of comprehensive pain management, and may be used concurrently in support of other conservative modalities. Conservative therapy may include analgesics, passive physical therapy, ultrasound, range of motion exercises, chiropractic intervention (within the defined limits of the Medicare benefit), and active exercises. Additionally, trigger point injections may be indicated when joint movement is mechanically limited, as in the case of the coccygeus muscle.

With no laboratory test criteria to identify trigger points available, the diagnosis of trigger points requires a detailed history and thorough physical examination to treat the cause of pain, not just the symptoms. With this intent, it is expected that trigger point injections may be performed as frequently as every two months for a maximum total of six injections in a rolling 12-month period (ICSI 2013). Thereafter, the patient should be re-evaluated regarding the etiology of the complaint, and the available treatment options reconsidered.

Trigger point injections and dry needling into trigger points are typically more effective methods than manual trigger point therapies. Trigger point injections are usually indicated for patients with active trigger points that produce a twitch when pressure is applied to the area. Dry needling may result in a more intense or longer lasting soreness of the injection site (Malanga, 2010).

Myofascial pain syndrome is a common non-articular local musculoskeletal pain syndrome caused by myofascial trigger points located at muscle, fascia, or tendinous insertions, affecting up to 95 percent of persons with chronic pain disorders. Myofascial pain syndrome can present as painful restricted range of motion, stiffness, referred pain patterns, and autonomic dysfunction. The underlying cause is often related to muscular imbalances, and following a thorough physical examination the condition should be treated with a comprehensive rehabilitation program. Additional treatment options include pharmacology, needling with or without anesthetic agents or nerve stimulation, and alternative medicine treatments, such as massage or herbal medicines. Repeated trigger point injections should be avoided, and corticosteroids should not be injected into trigger points.
Searches

AmeriHealth Caritas searched PubMed and the databases of:
- UK National Health Services Centre for Reviews and Dissemination.
- Agency for Healthcare Research and Quality’s National Guideline Clearinghouse and other evidence-based practice centers.
- The Centers for Medicare & Medicaid Services (CMS).

Searches were conducted on December 21, 2017, using the term “trigger point injections treatment.”

We included:
- **Systematic reviews**, which pool results from multiple studies to achieve larger sample sizes and greater precision of effect estimation than in smaller primary studies. Systematic reviews use predetermined transparent methods to minimize bias, effectively treating the review as a scientific endeavor, and are thus rated highest in evidence-grading hierarchies.
- **Guidelines based on systematic reviews.**
- **Economic analyses**, such as cost-effectiveness, and benefit or utility studies (but not simple cost studies), reporting both costs and outcomes — sometimes referred to as efficiency studies — which also rank near the top of evidence hierarchies.

Findings

A number of guidelines on treating various types of pain, including spine and back pain, make no mention of trigger point injections, including the 2007 American College of Physicians and American Pain Society guideline on low back pain (Chou, 2007).

Other guidelines are not able to recommend trigger point injections in pain management. The Association of Neurological Surgeons and Congress of Neurological Surgeons 2005 guideline on degenerative disease of the lumbar spine states there is “conflicting evidence suggesting use of local trigger point injections can be effective for the short-term relief of low back pain” (Resnick, 2005). The American Pain Society 2009 guideline finds insufficient evidence to recommend for or against local injections (including trigger pain injections) for non-specific low back pain (Chou, 2009), due to the lack of evidence of long-term efficacy, while acknowledging short-term improvements in pain levels (Watters, 2010).

An early American Society of Interventional Pain Physicians guideline covers the diagnosis of pain through symptoms and establishing trigger points (Manchikanti, 2001). In addition, non-invasive medical management should be attempted before considering trigger point injections, or these injections can be used as a bridging therapy while other treatments are initiated (Hayes, 2009).

A guideline by the American Society of Anesthesiologists Task Force on Chronic Pain Management and
American Society of Regional Anesthesia and Pain Medicine found evidence for single modality interventions for chronic pain, including trigger point injections, to be “insufficient to evaluate efficacy to provide relief,” but can be considered for treatment of patients with myofascial pain as part of a multimodal approach (ASA/ASRAPM, 2010).

Several systematic reviews have addressed trigger point injections’ impact on pain. A Hayes review of 17 randomized controlled trials (RCTs) of myofascial pain found that trigger point injections with various anesthetics decreased pain levels 34 to 88 percent, roughly the same as the reduction from trigger point injections with no injectate, also known as dry needle (31 to 87 percent). Hayes also found that trigger point injections reduce pain compared to no treatment (Hayes, 2013).

A systematic review of 15 RCTs of chronic non-malignant musculoskeletal pain concluded trigger point injections are safe, relieve symptoms when used as sole therapy for pain, and are useful as an adjunct to intra-articular injection for osteoarthritis, but show “no clear evidence of either benefit or ineffectiveness” (Scott, 2009). The same conclusion of no strong evidence for or against any type of injection therapy for low back pain was reached in a Cochrane review (Staal, 2008). A systematic review of botulinum toxin A injections in trigger points for myofascial pain found no consistent support for the procedure, as data are limited and clinically heterogeneous (Ho, 2007).

The 2013 Hayes review included studies that addressed aspects of trigger point injection efficacy on alleviating myofascial pain:

1. Trigger point injections with lidocaine and dry needling are both effective in reducing pain (Ay, 2010; Eroglu, 2013; Ozkan, 2011).
2. There is a similar increase in range of motion for trigger point injections with lidocaine or dry needling (Eroglu, 2013).
3. There is a 32 percent reduction in depression after 12 weeks among patients in pain after trigger point injections with lidocaine, and a 17 percent reduction after dry needling (Ay, 2010).
4. The response (pain reduction) to therapy for trigger point injections with botulinum is 51 percent, significantly greater than placebo at 26 percent (Gobel, 2006).

A systematic review of five studies determined that botulinum toxin A used in myofascial Trigger Point Injections was effective in pain relief for just one of the five studies (Ho, 2007).

A study found the anesthetics levobupivacaine and ropivacaine for trigger point injections were equally effective in reducing pain, with equal duration of pain reduction (Zaralidou, 2007). Another study of 98 patients with chronic pain and lumbosacral radiculopathy at L4 – L5 and L5 – S1 were examined for the presence of trigger points in their lower extremities. Of the 64 patients with trigger points, 32 received injections; their average pain score after treatment was 2.40, compared to 4.06 for the untreated group,
significant at \( p = 0.008 \) (Saeidian, 2014).

Acupuncture achieved similar pain relief and quality of life improvements to trigger point injections (bupivacaine twice weekly, plus cyclobenzaprine chlorhydrate daily and sodium dipyrene every eight hours) for myofascial trigger point pain (Gazi, 2011).

Some clinicians assert that trigger point injections should not be used at all for pain reduction. A 2015 review declares myofascial pain syndromes caused by trigger points are “inventions . . . with no scientific basis” (Quintner, 2015). Another review states trigger point injections are not indicated for chronic low back pain (Shen, 2006). Another states that repeated trigger point injections should be avoided, and corticosteroids shouldn’t be injected into trigger points (Malanga, 2010). While acknowledging short-term improvements in pain and/or disability by targeting trigger points, supporting insertion of dry needles, another article states there is lack of robust evidence validating the clinical diagnostic criteria for trigger point identification or diagnosis (Dunning, 2014).

**Policy updates:**

A total of one peer-reviewed reference was added to, and two guidelines/other and two peer-reviewed references were removed from this policy in December 2017.

The January 2017 version of the policy included an additional six professional guideline/other references, plus an additional 12 peer-reviewed references. The coverage section has been simplified.

**Summary of clinical evidence:**

<table>
<thead>
<tr>
<th>Citation</th>
<th>Content, Methods, Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hayes (2013)</strong></td>
<td><strong>Key points:</strong></td>
</tr>
</tbody>
</table>
| Trigger point injections for myofascial pain | • Hayes review of 17 studies of trigger point injections.  
• Trigger point injection with lidocaine and dry needling are both effective in reducing pain.  
• Similar increases in range of motion observed for trigger point injection with lidocaine and dry needling.  
• A 32 percent reduction in depression observed after 12 weeks among patients in pain after trigger point injection with lidocaine, and a 17 percent reduction after dry needling.  
• The response (pain reduction) to therapy for trigger point injection with botulinum is 51%, significantly greater than placebo (26%). |

| Eroglu (2013)    | **Key points:**                   |
| Comparison of efficacy of types of trigger point injections for myofascial pain | • Comparison of efficacy of dry needling, lidocaine injection, and oral flurbiprofen treatments in patients with myofascial pain.  
• Double-blind (for injection, groups only), randomized clinical trial.  
• Lidocaine trigger point injection patients had pain reductions of 34 to 88 percent.  
• Dry needle patients had similar pain reduction of 31 to 87 percent.  
• Patients in each group had similar increases in range of motion after four weeks. |
<table>
<thead>
<tr>
<th>Citation</th>
<th>Content, Methods, Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scott (2009)</td>
<td>Trigger point injections for chronic non-malignant musculoskeletal pain</td>
</tr>
<tr>
<td><strong>Key points:</strong></td>
<td>Systematic review of 15 RCTs.</td>
</tr>
<tr>
<td></td>
<td>Head, neck, shoulder, and back pain accounted for 10 RCTs (n = 439).</td>
</tr>
<tr>
<td></td>
<td>Only patients with pain persisting for over three months prior to injections included.</td>
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<tr>
<td></td>
<td>Authors concluded that trigger point injection was safe, but no clear evidence of benefit or ineffectiveness found — no different from a decade earlier.</td>
</tr>
<tr>
<td>Staal (2008)</td>
<td>Injections for subacute and chronic low back pain</td>
</tr>
<tr>
<td><strong>Key points:</strong></td>
<td>Cochrane review of 18 RCTs, n = 1179.</td>
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<td></td>
<td>Ten of 18 RCTs taken from 2000 Cochrane review on injections for low back pain.</td>
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<td></td>
<td>Eight placebo controlled, 10 compared injections with other therapy.</td>
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<td></td>
<td>Two studies found similar self-reported improvements in pain for trigger point injection with corticosteroids compared to placebo (dry needle).</td>
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</tbody>
</table>

**References**

**Professional society guidelines/other:**


**Peer-reviewed references:**


**CMS National Coverage Determinations (NCDs):**

No NCDs identified as of the writing of this policy.

**Local Coverage Determinations (LCDs):**


L35010 Trigger Point Injections: Novitas Solutions, Inc. Effective October 1, 2015.
Commonly submitted codes

Below are the most commonly submitted codes for the service(s)/item(s) subject to this policy. This is not an exhaustive list of codes. Providers are expected to consult the appropriate coding manuals and bill accordingly.

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<thead>
<tr>
<th>CPT Code</th>
<th>Description</th>
<th>Comments</th>
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<tbody>
<tr>
<td>20552</td>
<td>Injection(s); single multiple trigger point(s), one or two muscle(s)</td>
<td></td>
</tr>
<tr>
<td>20553</td>
<td>Injection(s); single multiple trigger point(s), three or more muscle(s)</td>
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<table>
<thead>
<tr>
<th>ICD-10 Code</th>
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<tbody>
<tr>
<td>M51.14</td>
<td>Intervertebral disc disorders with radiculopathy, thoracic region</td>
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<tr>
<td>M51.15</td>
<td>Intervertebral disc disorders with radiculopathy, thoracolumbar region</td>
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<td>M51.16</td>
<td>Intervertebral disc disorders with radiculopathy, lumbar region</td>
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<td>M51.17</td>
<td>Intervertebral disc disorders with radiculopathy, lumbosacral region</td>
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<td>M53.0</td>
<td>Cervicocranial syndrome</td>
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<td>M53.1</td>
<td>Cervicobrachial syndrome</td>
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<td>Radiculopathy, lumbosacral region</td>
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<td>M54.2</td>
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<td>M54.31</td>
<td>Sciatica, right side</td>
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<td>M54.32</td>
<td>Sciatica, left side</td>
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<tr>
<td>M54.40</td>
<td>Lumbago with sciatica, unspecified side</td>
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<td>M54.41</td>
<td>Lumbago with sciatica, right side</td>
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<td>M54.42</td>
<td>Lumbago with sciatica, left side</td>
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<tr>
<td>M54.5</td>
<td>Low back pain</td>
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<td>M54.6</td>
<td>Pain in thoracic spine</td>
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<tr>
<td>M54.89</td>
<td>Other dorsalgia</td>
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<td>M54.9</td>
<td>Dorsalgia, unspecified</td>
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<table>
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<td>J1020</td>
<td>Injection, methylprednisolone acetate, 20 mg</td>
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<tr>
<td>J1030</td>
<td>Injection, methylprednisolone acetate, 40 mg</td>
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<td>HCPCS Level II Code</td>
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<tr>
<td>J1040</td>
<td>Injection, methylprednisolone acetate, 80 mg</td>
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<tr>
<td>G0260</td>
<td>Injection procedure for sacroiliac joint; provision of anesthetic, steroid and/or other therapeutic agent, with or without arthrography</td>
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