Subject: Trigger Point Injections		**Original Effective Date:** 7/5/07
Guidance Number: MCG-031	**Revision Date(s):** 12/3/09, 6/29/12, 12/11/13, 6/12/14	
Medical Coverage Guidance Approval Date: 06/25/14		

PREFACE

This Medical Guidance is intended to facilitate the Utilization Management process. It expresses Molina's determination as to whether certain services or supplies are medically necessary, experimental, investigational, or cosmetic for purposes of determining appropriateness of payment. The conclusion that a particular service or supply is medically necessary does not constitute a representation or warranty that this service or supply is covered (i.e., will be paid for by Molina) for a particular member. The member's benefit plan determines coverage. Each benefit plan defines which services are covered, which are excluded, and which are subject to dollar caps or other limits. Members and their providers will need to consult the member's benefit plan to determine if there are any exclusions or other benefit limitations applicable to this service or supply. If there is a discrepancy between this policy and a member's plan of benefits, the benefits plan will govern. In addition, coverage may be mandated by applicable legal requirements of a State, the Federal government or CMS for Medicare and Medicaid members. CMS's Coverage Database can be found on the following website: http://www.cms.hhs.gov/center/coverage.asp.

FDA INDICATIONS

U.S. Food and Drug Administration (FDA)[2]

Trigger point injections are a procedure and are not regulated by the Food and Drug Administration.

CENTERS FOR MEDICARE AND MEDICAID SERVICES (CMS)

The coverage directive(s) and criteria from an existing National Coverage Determination (NCD) or Local Coverage Determination (LCD) will supersede the contents of this Molina medical coverage guidance (MCG) document and provide the directive for all Medicare members. The directives from this MCG document may be followed if there are no available NCD or LCD documents available and outlined below.

Centers for Medicare and Medicaid Services (CMS)[2]

A CMS National Coverage Determination (NCD) was not found for trigger point injections. Local coverage determinations (LCD's)[39] are available for trigger point injections. These LCD's provide coverage for trigger point injections after myofascial pain syndrome diagnosis is established. Coverage is provided following unsuccessful noninvasive medical management. (e.g., analgesics, passive physical therapy, range of motion and exercise, ultrasound therapy); as a bridging therapy to relieve pain while other treatments such as physical therapy are initiated. Only one code from 20552 or 20553 should be reported on any day, regardless of the number of sites or regions injected. When a given site is injected, it is considered one injection service, regardless of the number of injections administered. CMS does not cover prolotherapy.

INITIAL COVERAGE CRITERIA

Trigger point injections (local anesthetics with or without corticosteroids) may be authorized for chronic severely debilitating pain when ***all*** of the following criteria are met: [ALL]

- ❑ Adults who are age 18 years or older [45]

- ❑ A comprehensive pain evaluation and treatment plan has been performed by a qualified specialist trained in the treatment using trigger point therapy injections;[31] *and*

- ❑ Physical examination documentation reveals the clinical characteristics of trigger point pain syndrome[1,27,28,29,31]
  - Symptoms to establish the diagnosis [26]: [ALL]
    - ◊ Regional pain complaint
    - ◊ Altered sensation or complaint of pain in the expected distribution from a trigger point
    - ◊ Palpable taut bands of muscle
    - ◊ Decreased range of motion or ability to stretch; *and*

  - Diagnosis established by one of the following: [26] [ONE]
    - ◊ Reproduction of referred pain pattern by stimulating the trigger point
    - ◊ Altered sensation by pressure on the tender spot
    - ◊ Twitch response elicited by snapping palpation or needle insertion into the tender area
    - ◊ Pain alleviated by muscle stretching or injecting the tender area; *and*

  - Radiculopathy is not present (by exam, imaging or neurotesting) [46]

- ❑ Noninvasive medical management (e.g., exercise, physical therapy, passive modalities such as ice/heat, massage, and medications such as oral analgesia, muscle relaxants, tricyclic antidepressants)[31] has been unsuccessful for a minimum of 3 to 6 months OR

- ❑ Trigger point injections are used as a bridging therapy to relieve pain while other treatments such as physical therapy are initiated [2]

Note: Exercise therapy program should be ordered in conjunction with trigger point injections [30]

Initiation of Treatment and Injection Frequency following Criteria Approval [26]

Therapeutic trigger point injections should be given only if the above criteria are met and should continue only if the previous injection provided pain relief of 50% relief documented through an objective assessment of pain using a standardized pain assessment tool (e.g., visual analog scale, verbal descriptor scale) for minimally 6 weeks before subsequent injections within the same region are authorized. [31] [ALL]

- ❑ No more than 4 injections per session [46]

- ❑ The frequency should be 2 months or longer between each injection not to exceed a total of 6 injections in one region.[31] Specific regions are defined as: [ONE]
  - Abdomen
  - Back

- Chest, including breast and axilla
- Each extremity
- Genitalia, groin, buttocks
- Head, including the face
- Neck

- ❑ The injections should only be repeated as necessary if the medical necessity criteria above are achieved to a maximum of 6 treatment sessions per rolling calendar* year; and [ALL]: [46]
  - Documented evidence of functional improvement after the trigger point injections; and
  - Documented of decreased use of pain medications after the injections

- ❑ Injections at different regions can be given 2 weeks apart but no sooner than 1 week from following an injection in a different region.[31]

- ❑ Reevaluation of the diagnosis is recommended for patients who fail to improve after a series of 3 trigger point injections. [45]

- ❑ Only one code from 20552 or 20553 should be reported on any particular day, no matter how many sites or regions are injected.[28]

- ❑ When a given site is injected, it will be considered one injection service, regardless of the number of injections administered.[28]

* Note: A rolling calendar year is twelve months after the event, beginning and ending in the same month the initial event took place; (e.g., first diagnostic injection is given in December 2013, the rolling calendar year would end in December 2014)

CONTINUATION OF THERAPY

The frequency and scope of service is outlined under the coverage criteria section of this document. Trigger point injections should only be performed with anesthetics and/or corticosteroids. Refer to the 'Coverage Criteria section for the number of approved treatments.

COVERAGE EXCLUSIONS

Trigger point injections are *excluded from coverage* for the following:

- ❑ Members that do not meet the outlined "Coverage Criteria' listed above

- ❑ Use of agents other than local anesthetic agents with or without corticosteroids (e.g., glucose, saline*, magnesium sulfate, botulin toxin and hyaluronate)

- ❑ Requests for trigger point injections exceeding the limits outlined above

- ❑ Treatment of patients with acute low back and acute pain syndromes

- ❑ Dry needling of trigger points

- ❑ Trigger point injections for the treatment of myofascial pain located in any other area of the body (other than the neck, back and shoulders) [34]

** Note: Saline mixed with local anesthetic to dilute the anesthetic would be acceptable*

Prolotherapy (injection of sclerosants into the joints or ligaments) is *not* covered. [39 43] If prolotherapy is billed using trigger point therapy codes (20552, 20553) it will *not* be covered.

Contraindications to trigger-Point Injections[3]

- ❑ Anticoagulation or bleeding disorders
- ❑ Aspirin Ingestion within three days of injection
- ❑ Local or systemic infection
- ❑ Allergy to agents
- ❑ Acute muscle trauma

DESCRIPTION OF PROCEDURE/SERVICE/PHARMACEUTICAL

Trigger points are hyperirritable tender, firm knots of skeletal muscle tissue when palpated feel like a small pea or walnut embedded within the muscle tissue.[1,2,3] They can cause referred pain when the muscle is compressed. They can cause muscle spasm, stiffness, shortening and fatigue. They can also interfere with muscle lengthening, impair muscle coordination, and reduce range of motion and muscle strength. Trigger point injections are used to inactivate the trigger point to reduce pain and restore function. They facilitate physical therapy but are employed as a diagnostic tool to determine if pain is originating from the trigger points. They are often employed for fast pain relief. Trigger points may occur after a single traumatic event or result from multiple traumatizations from long-term effects of repetitive stress injuries, poor posture, and lack of exercise or joint problems. The main objective of trigger point injection is fast pain relief and elimination of muscle spasm in order to break the pain cycle.[1] Elimination of the trigger point and the taut band facilitates physical therapy aimed at regaining muscle length and increasing range of motion. The addition of trigger point injection to stretching exercises augments treatment outcomes.[15]

Trigger point pain has been most commonly documented following accidental injury, overexertion injury, with pinched spinal nerves, prolonged stress, tension, lack of exercise, poor posture and with hormonal or endocrine disturbances resulting in muscle aches. The most common muscles affected for trigger point development are those used to maintain body posture. These muscles include the pelvic girdle, shoulder and neck; specifically, the quadratus lumborum, levator scapulae, sternocleidomastoid, scalene and upper trapezius. The head and

neck region can develop into eye symptoms, tension headaches, tinnitus, temporomandibular joint pain, torticollis, and eye symptoms. The lower extremities can cause pain in the calf and quadriceps areas and decreased range of motion in the ankle and knee. Low back pain can be developed from trigger points found in the gluteus maximus and medius muscles. Upper limb pain can radiate to the shoulder region and symptoms similar to bursitis and tendonitis may develop.

Following soft tissue damage, the tissue damage will heal and often develop scar tissue. The scar tissue typically forms a taut hardened band in the muscle tissue that can be palpated upon examination. The scar tissue can entangle nerves creating pain and increased irritation and develop into a trigger point for ongoing pain. According to Fomby, E and Mellion, M, "trigger points can be classified as either active or latent. Active trigger points cause ongoing, persistent pain; latent trigger points are silent until palpated. Both create a local twitch response when palpated and can be associated with decreased range of motion, weakness in the affected muscle group, and decreased ability of the muscle to stretch actively and passively."[33]

Administration of trigger point injections include an injection of a local anesthetic with or without corticosteroid medications injected directly into the trigger point to inactivate the contracted muscle.[2] Dry needling or an injection of saline or glucose has been used less frequently. Dry needling is a repeated insertion and withdrawal of a needle into the trigger point to break up scar tissue without using a substance. Botulinum toxin A (Botox®) and tropisetron a 5-HT3 receptor antagonist are currently being investigated for the treatment of trigger points.

GENERAL INFORMATION

Summary of Medical Evidence

There is lack of high quality data in the peer-reviewed medical literature for the use of trigger point injections.[1,5,10] The clinical trial data for trigger point injections has deficiencies in reporting data, small sample sizes, and marked inter-study heterogeneity. Trigger point injections are a safe procedure when used by clinicians with appropriate expertise and training.[32] The literature indicates there is no clear evidence of either benefit or ineffectiveness. [1,5,10] Trigger point injections have shown to inactivate the trigger point to reduce pain and restore function. They have also shown to facilitate physical therapy.[30] Trigger point injections should not be used as the first line treatment.[32] Trigger point injections are generally considered to be an adjunctive rather than a primary form of treatment for chronic musculoskeletal pain. The only advantage of injecting anesthetic into trigger points may be to reduce the pain of the needling process, which may not be an insignificant benefit. There are no randomised controlled trials evaluating the use of trigger point injections in the pediatric population.

Trigger points with Anesthetic/Saline

A prospective, single-blind study compared trigger point injection with botulinum toxin type A (Botox-A) to dry needling and lidocaine injection in myofascial pain syndrome.[12] Eighty-seven trigger points (cervical and/or periscapular regions) in 23 female and six male patients were treated and randomly assigned to three groups: lidocaine injection (n=10, 32 points), dry needling (n=10, 33 points), and BTX-A injection (n=9, 22 points). Clinical assessment including cervical range of motion, pain pressure threshold (PPT), pain scores (PS), and visual analog scales for pain, fatigue, and work disability were evaluated at entry and the end of the 4th week. Additionally, depression and anxiety were evaluated with the Hamilton depression and anxiety rating scales, and quality of life was assessed using the Nottingham health profile (NHP). One milliliter of 0.5% lidocaine was administered in the lidocaine injection group, 10-20 IU of Botox-A in the Botox-A group, and dry needling to each in the last group, followed by stretching of the muscle groups involved. The patients were instructed to continue their home exercise programs. Pain pressure thresholds and PS significantly improved in all three groups. In the lidocaine group, PPT values were significantly higher than in the dry needle group, and PS were significantly lower than in both the BTX-A and dry needle groups. In all, visual analog scores significantly decreased in the lidocaine injection and BTX-A groups and did not significantly change in the dry needle group. Disturbance during the injection procedure was lowest in the lidocaine injection group. Quality of life scores assessed by NHP significantly improved in the lidocaine and Botox-A groups but not in the dry needle group. The authors concluded lidocaine injection is more practical and rapid, since it causes less disturbance than dry needling and is more cost effective than Botox-A injection, and seems the treatment of choice in myofascial pain syndrome.

A prospective randomized double-blind trial of twenty patients with chronic myofascial pain in both shoulders with trigger points in the suprascapular regions with moderate pain was conducted.[13] One trigger point received 2ml of a mixture of 0.5ml 1% lidocaine and 1.5ml water. The other side of the trapezius muscle received 2mL 1% lidocaine. A pain relief grading scale was assessed up to 14 days following the injection. There was a significant difference between the injection of lidocaine and water and 1% lidocaine with a greater improvement in lidocaine and water. The improvement score in lidocaine returned to pretreatment level within 7 days, whereas the injection of lidocaine/water resulted in significant improvement for at least 14 days. Similar results were noted in a previous study.[14]

A Cochrane systematic review of 18 randomized controlled trials (n-1179) on the effectiveness of injection therapy for low back pain.[11] The injection sites from epidural and facet joints to local tender and trigger point sites. Corticosteroids, local anesthetics, and a variety of other medications were included in the evaluation. Ten of the 18 trials were rated with a high methodological quality. The results indicated that there was no strong evidence in favor or against the use of any type of injection therapy. The authors concluded there was insufficient evidence to support the use of injection therapy in subacute and chronic low-back pain. However, it cannot be dismissed that specific subgroups of patients can respond to a specific type of injection therapy.

Trigger points are suggested to be beneficial in patients with tender points associated with myofascial pain syndrome. An evidence based review resource recommends the use of a local anesthetic for pain relief in trigger points.[16] The improvement response is suggested to be mediated by the endogenous opioid system.

A Cochrane systematic review was conducted to evaluate medicinal and injection therapies for mechanical neck disorders.[17] Thirty-six trials examined the effects of oral NSAIDs, psychotropic agents, steroid injections, and anesthetic agents. Trials had a mean of 3.1 on the Jadad Scale for methodological quality; 70% were high quality. The authors indicated lidocaine injections into myofascial trigger points were effective in two trials. Moderate evidence suggested that Botulinum Toxin A is not superior to saline injection for chronic mechanical neck disorders.

Trigger Point with Corticosteroid administration

A review of the literature has shown conflicting results regarding the effectiveness of the injection substance.[11, 23] Two systematic reviews indicate that the effect of trigger point therapy is likely due to the needling or placebo effect rather than the actual injected substance. The literature indicates corticosteroid administration minimizes the ventral and peripheral sensitization effects in myofascial pain[18] and may inhibit the release of arachidonic acid from phospholipids, reducing the formation of prostaglandins, which contribute to the inflammatory process.[21] The use of lidocaine and corticoid had less post-injection discomfort with relief of local symptoms following application and less need of ingestion of pain medications resulting from the anti-inflammatory action when the corticoid is used.[18]

Forty-five (45) myofascial pain patients with headaches that could be reproduced by activating at least one trigger point, were randomly assigned into one of the three groups: G1, dry-needling, G2, 0.25% lidocaine, at 0.25% and G3, 0.25% lidocaine at 0.25% associated with corticoid, and were assessed during a 12 week period.[22] Levels of pain intensity, frequency and duration, local post-injection sensitivity, obtainment time and duration of relief, and the use of rescue medication were evaluated. Statistically, all three groups showed favorable results for the evaluated requisites ($p < \text{or} = 0.05$), but only for post-injection sensitivity did the association of lidocaine with corticoid present the best results and ingestion of rescue medication.

Trigger point by Dry Needling

A Cochrane review was conducted evaluating thirty-five randomized-control trials (RCT's) covering 2861 patients receiving acupuncture or dry-needling for low back pain.[4] There is insufficient evidence to make any recommendations about acupuncture or dry-needling for acute low-back pain. Results for chronic back pain show that acupuncture is more effective for pain relief than no treatment or sham treatment, in measurements taken up to three months. The authors concluded that dry-needling appears to be a useful adjunct to other

therapies for chronic low-back pain. Because most of the studies were of lower methodological quality, there is a further need for higher quality trials.

An analysis of seven studies was included in this review.[10] One study concluded that direct dry needling was superior to no intervention. Two studies, comparing direct dry needling to needling elsewhere in the muscle, produced contradictory results. Four studies used a placebo control and were included in a meta-analysis. Combining these studies (n = 134), needling was not found to be significantly superior to placebo (standardized mean difference, 14.9 [95%CI, −5.81 to 33.99]), however marked statistical heterogeneity was present ($I2$ = 88%). The authors conclude "there is limited evidence deriving from one study that deep needling directly into myofascial trigger points has an overall treatment effect when compared with standardized care. Whilst the result of the meta-analysis of needling compared with placebo controls does not attain statistically significant, the overall direction could be compatible with a treatment effect of dry needling on myofascial trigger point pain. However, the limited sample size and poor quality of these studies highlights and supports the need for large scale, good quality placebo controlled trials in this area."[10]

A systematic review to evaluate the effectiveness of dry needling and injections of myofascial pain associated with plantar heel pain was conducted. Randomised and non-randomized trials of participants diagnosed with plantar heel pain were treated with dry needling and/or injections (local anesthetics, steroids, Botulinum toxin A and saline) alone or in combination with acupuncture were included. Three trials met inclusion criteria, two trials found a reduction in pain for the use of trigger point dry needling when combined with acupuncture and the third found a reduction in pain using 1% lidocaine injections when combined with physical therapy. The methodological quality of the three trials was poor, with Quality Index scores ranging from 7 to 12 out of a possible score of 27. The authors concluded that there is limited evidence for the effectiveness of dry needling and/or injections of myofascial trigger points associated with plantar heel pain. Additional randomized controlled trials need to be conducted. [41]

<u>Trigger Point with Botulinum Toxin</u>

A systematic review of the literature was conducted evaluating double[6,7] or single blind randomized-control trials (RCT's) with 10 or more participants.[5] Studies of Botox A for myofascial trigger points were included with active or inactive controls. All included studies compared botox with saline injections. The duration of pain ranged from 6 months to 8.6 years. Pain locations were neck, shoulder, cervical and cervico-thoracic. Outcomes measured included rescue medication, pain, mood, range of motion and assessment of improvement. Five RCT's (n-257) were included. Four studies found no significant difference between Botox and control groups on all measures. One study found significant improvement in pain 4 weeks post Botox injection but the study quality scored low and was considered to be not reliable. The author's conclusions indicated "the current evidence does not support the use of Botox for myofascial trigger point."[5]

The efficacy of botulinum toxin A as a prophylactic treatment of headaches with cervical myofascial trigger points has been evaluated in several studies with mixed results.[8,9] The authors of these studies conclude the evidence is mixed and further studies with larger sample size are needed to test the accuracy of the hypothesis.[8,9] Based on the evidence-based conclusions reported by the American Academy of Neurology[9], Botox A injection is probably ineffective in the treatment of episodic migraine and chronic tension-type headaches and to date there is no consistent evidence to support the use of Botox A injection for treatment of chronic daily headache. However, the results from randomized, double-blind, and placebo-controlled published studies show the efficacy of Botox A injection for the prophylactic treatment of migraine headache. Future clinical trials appear warranted to evaluate the use of Botox A injection for treatment of migraine, chronic tension-type headache, and chronic daily headache.[9]

An evidence based review guideline indicates the effectiveness of local injection of botulinum toxin type A into tender points is uncertain.[16] There are conflicting results regarding the effectiveness of botulinum toxin type A in providing pain relief in myofascial pain disorders. The analgesic effect in certain studies are similar to injection of glucocorticoids or saline and less than or similar to that of lidocaine. The authors conclude that due to conflicting data and lack of clear evidence that botulinum toxin injections are clearly superior to the injection of less costly agents, we suggest not using botulinum toxin for tender or trigger point injections.

Trigger Point Injection with Exercise Therapy

A randomized-control study of 102 patients with chronic trigger point pain of the upper trapezius muscle to: ultrasound and neck stretching (group 1); trigger point injections and neck stretching exercises (group 2); or neck stretching exercises alone (control group).[30] Patients in groups 1 and 2 had a statistically significant reduction in pain intensity, an increase in pressure pain threshold, and an increase in range of motion. There were no statistically significant differences in outcomes between groups 1 and 2.

Hayes, Cochrane, UpToDate, MD Consult etc.

A Hayes Directory Report on Trigger Point Injections for Myofascial Pain indicated that there is evidence of the efficacy and safety of trigger point injection (TPI) for myofascial pain syndrome. Findings from the majority of the available studies recommend that in patients with pain occurring from myofascial trigger points located in the neck, back and shoulder areas of the body, TPI can reduce pain, increase pressure point threshold, and improve range of motion (ROM). Data shows that there is no benefit for injecting botulinum toxin type A (BTX-A) in any region as a treatment for pain. There is very little evidence that dry needling in any region of the body demonstrates any benefit as a treatment for pain. There is very little evidence that trigger point injections for the treatment of myofascial pain located in any other area of the body demonstrates any benefit as a treatment and is not recommended. [34]

UpToDate recommends in a report on the nonsurgical treatment for subacute and chronic low back pain that trigger point injections may be beneficial in patients with tender points. [43]

Professional Organizations

American Association of Neurological Surgeons / Congress of Neurological Surgeons (AANS/CNS) [34 35 36]: The AANS/CNS Joint Section of Disorder of the Spine and Peripheral Nerves selected a group of orthopedic and neurosurgical spine surgeons to conduct an evidence-based review of the literature on lumbar fusion procedures for degenerative disease of the lumbar spine. The group (with input from the Guidelines Committee of AANS/CNS and the Clinical Guidelines Committee of North American Spine Society) developed a comprehensive set of evidence-based guidelines and one of these guidelines addressed the use of injection therapies in patients with chronic low back pain due to degenerative disease of the lumbar spine. A total of 17 studies were identified that evaluated lumbar TPI as treatment for chronic low back pain. The team concluded that lumbar TPI may be recommended as a treatment alternative to provide temporary, symptomatic relief in selected patients with chronic low back pain. However, the use of lumbar TPI is not recommended as a treatment selection for long-term relief of chronic low back pain.

Society of Obstetricians and Gynecologists of Canada (SOGC) and Chronic Pelvic Pain Working Group [34 37]: The Chronic Pelvic Pain Working Group developed evidence-based consensus guidelines on the management of chronic pelvic pain for primary care health professionals, general obstetricians and gynecologists, and specialists in chronic pain. The guideline was approved by the Executive and Council of the SOGC. Recommendations of the guideline indicate that health care providers should become more informed regarding myofascial dysfunction as a cause of chronic pelvic pain, and available treatment options. The guideline indicates that treatment of the myofascial component of chronic pelvic pain may be done by inactivating trigger points through physical therapy or injection of local anesthetic into the trigger points.

The American Society of Anesthesiologists Task Force on Chronic Pain Management and the American Society of Regional Anesthesia and Pain Medicine developed Practice guidelines for chronic pain management. These guidelines indicate that trigger point injections may be beneficial for treatment of myofascial pain as part of a multi-disciplinary treatment approach to pain management. [34 38]

Institute for Clinical Systems Improvement (ICSI): ICSI published a healthcare guideline regarding the assessment and management of chronic pain in 2011. This guideline indicates that trigger point injections for myofascial pain may be a useful adjunctive treatment that may impact the rate of recovery. [40]

The American College of Occupational and Environmental Medicine recommends in a guideline for chronic pain that trigger point injections using a local anesthetic for myofascial pain and chronic persistent pain may be a secondary or tertiary option for trigger points that are not resolving. [42]

CODING INFORMATION: THE CODES LISTED IN THIS POLICY ARE FOR REFERENCE PURPOSES ONLY. LISTING OF A SERVICE OR DEVICE CODE IN THIS POLICY DOES NOT IMPLY THAT THE SERVICE DESCRIBED BY THIS CODE IS A COVERED OR NON-COVERED. COVERAGE IS DETERMINED BY THE BENEFIT DOCUMENT. THIS LIST OF CODES MAY NOT BE ALL INCLUSIVE.

CPT	Description
20552	Injection(s); single or multiple trigger point(s), one or two muscle(s)
20553	Injection(s); single or multiple trigger point(s), three or more muscle(s)

HCPCS	Description
M0076	Prolotherapy

ICD-9	Description
338.21	Chronic pain due to trauma (can use as standalone code)
338.29	Other chronic pain (can use as standalone code)
723.1 and 338.21 or 338.29	Cervicalgia, (chronic)
723.9 and 338.21 or 338.29	Unspecified musculoskeletal disorders and symptoms referable to neck (chronic)
724.1 and 338.21 or 338.29	Pain in thoracic spine (chronic)
724.2 and 338.21 or 338.29	Lumbago (chronic)
728.85 and 338.21 or 338.29	Spasm of muscle (chronic)
729.1 and 338.21 or 338.29	Myalgia and myositis, unspecified/myofascial pain syndrome (chronic)

ICD-10	Description
G89.21	Chronic pain d/t trauma
G89.22	Chronic postthoracotomy pain

G89.28	Other chronic post procedural pain
G89.29	Other chronic pain
G89.4	Chronic pain syndrome
M54.2	Cervicalgia
M53.82	Other spec dorsopathies cervical region
M54.6	Pain in thoracic spine
M54.5	Low back pain
M62.40	Contracture of muscle unspecified site
M62.411	Contracture of muscle right shoulder
M62.412	Contracture of muscle left shoulder
M62.419	Contracture of muscle unspec shoulder
M62.421	Contracture of muscle right upper arm
M62.422	Contracture of muscle left upper arm
M62.429	Contracture of muscle unspec upper arm
M62.431	Contracture of muscle right forearm
M62.432	Contracture of muscle left forearm
M62.439	Contracture of muscle unspec forearm
M62.441	Contracture of muscle right hand
M62.442	Contracture of muscle left hand
M62.449	Contracture of muscle unspec hand
M62.451	Contracture of muscle right thigh
M62.452	Contracture of muscle left thigh
M62.459	Contracture of muscle unspec thigh
M62.461	Contracture of muscle right lower leg
M62.462	Contracture of muscle left lower leg
M62.469	Contracture of muscle unspec lower leg
M62.471	Contracture of muscle right ankle & foot
M62.472	Contracture of muscle left ankle & foot
M62.479	Contracture of muscle unspec ankle & foot

M62.48	Contracture of muscle other site
M62.49	Contracture of muscle multiple sites
M62.831	Muscle spasm of calf
M62.838	Other muscle spasm
M60.80	Other myositis unspecified site
M60.811	Other myositis right shoulder
M60.812	Other myositis left shoulder
M60.819	Other myositis unspecified shoulder
M60.821	Other myositis right upper arm
M60.822	Other myositis left upper arm
M60.829	Other myositis unspecified upper arm
M60.831	Other myositis right forearm
M60.832	Other myositis left forearm
M60.839	Other myositis unspecified forearm
M60.841	Other myositis right hand
M60.842	Other myositis left hand
M60.849	Other myositis unspecified hand
M60.851	Other myositis right thigh
M60.852	Other myositis left thigh
M60.859	Other myositis unspecified thigh
M60.861	Other myositis right lower leg
M60.862	Other myositis left lower leg
M60.869	Other myositis unspecified lower leg
M60.871	Other myositis right foot & ankle
M60.872	Other myositis left foot & ankle
M60.879	Other myositis unspecified foot & ankle
M60.88	Other myositis other site
M60.89	Other myositis multiple sites
M60.9	Myositis unspecified

M79.1	Myalgia
M79.7	Fibromyalgia

RESOURCE REFERENCES

1. Scott NA, Guo B, Barton PM, Gerwin RD. Trigger point injections for chronic non-malignant musculoskeletal pain: a systematic review. Pain Med. 2009 Jan;10(1):54-69.
2. Hayes, Inc. Hayes Search & Summary. *Trigger Point Injection for Treatment of Pain.* Lansdale, PA: Hayes, Inc.; June, 2009.
3. Alvarez, DJ., Rockwell, PG., *Trigger Points: Diagnosis and Management.* American Family Physician. February 15, 2002; Volume 65, Number 4: pp. 653-660. Retrieved on April 21, 2007 from: http://www.aafp.org/afp/20020215/653.html
4. Furlan AD, van Tulder MW, Cherkin D, Tsukayama H, Lao L, Koes BW, Berman BM. Acupuncture and dry-needling for low back pain. *Cochrane Database of Systematic Reviews* 2009, Issue 3. Art. No.: CD001351. DOI: 10.1002/14651858.CD001351.pub2.
5. Ho KY, Tan KH. Botulin toxin A for myofascial trigger point injection: a qualitative systematic review. European Journal of Pain 2007;11(5):519-527.
6. Graboski CL, Gray DS, Burnham RS. Botulinum toxin A versus bupivacaine trigger point injections for the treatment of myofascial pain syndrome: a randomized double blind crossover study. Pain 2005 Nov;118(1-2):170-5 epub 2005 oct 3.
7. Ferrante M, Bearn L, et al. Evidence against trigger point injection technique for the treatment of cervicothoracic myofascial pain with Botulinum Toxin Type A. Anesthesiology, August, 2005;103(2):377-383.
8. Harden RN, Cottrill J, Gagnon et al. Botulin toxin in the treatment of chronic tension-type headache with cervical myofascial trigger points: a randomized, double-blind, placebo controlled pilot study. Headache, 2009 May;49(5):732-43. epub 2008 Oct 24.
9. Simpson DM, Blitzer A, Brashear A, Comella C, Dubinsky R, Hallett M, Jankovic J, Karp B, Ludlow CL, Miyasaki JM, Naumann M, So Y, Therapeutics and Technology Assessment Subcommittee of the American Academy of Neurology. Assessment: Botulinum neurotoxin for the treatment of movement disorders (an evidence-based review): report of the Therapeutics and Technology Assessment Subcommittee of the American Academy of Neurology. Neurology 2008 May 6;70(19):1699-706. [35 references]. Accessed: May 2012 at: http://www.aan.com/practice/guideline/uploads/280.pdf
10. Tough EA, White AR, Cummings TM et al. Acupuncture and dry needling in the management of myofascial trigger point pain: a systematic review and meta-analysis of randomized controlled trials. European Journal of Pain, 2009;13:3-10.
11. Staal JB, de Bie R, de Vet HCW, Hildebrandt J, Nelemans P. Injection therapy for subacute and chronic low-back pain. *Cochrane Database of Systematic Reviews* 2008, Issue 3. Art. No.: CD001824. DOI: 10.1002/14651858.CD001824.pub3.
12. Kamanli A, Kaya A, Ardicoglu O, et al. Comparison of lidocaine injection, botulin toxin injection, and dry needling to trigger points in myofascial pain syndrome. Rhematology Int 2005;25(8):604-611
13. Iwama H, Akama Y. The superiority of water-diluted 0.25% to Neat 1% lidocaine for trigger-point injections in myofascial pain syndrome: a prospective, randomized, double-blinded trial.
14. Iwama H, Ohmori S, Keneko T, Watanabe K. Water-diluted local anesthetic for trigger point injection in chronic myofascial pain syndrome: evaluation of types of local anesthetic and concentrations in water. Regional Anesthetic Pain Med. 2001 Jul-Aug;26(4):333-6.
15. Venancio RA, Alencar FG, Zamperini C. Botulin Toxin, lidocaine, and dry-needling injections in patients with myofascial pain and headaches. Cranio 2009 January;27(1):46-53.
16. Sheon RP, Isaac Z, Romain P. Overview of soft tissue rheumatic disorders. In: UpToDate, Rose, BD (Ed), UpToDate, Altham, MA, 2007.
17. Peloso PMJ, Gross A, Haines T, Trinh K, Goldsmith CH, Burnie SJ, Cervical Overview Group. Medicinal and injection therapies for mechanical neck disorders. *Cochrane Database of Systematic Reviews* 2007, Issue 3. Art. No.: CD000319. DOI: 10.1002/14651858.CD000319.pub4

18. Vanancia RA, FP Alencar, Zamperini C. Different substances and dry-needling injections in patients with myofascial pain and headaches. The Journal of Craniomandicular Practice. April, 2008;26(2):96-103.
19. Criscuolo CM. Interventional approaches to the management of myofascial pain syndrome. Current Pain and Headache Reports 2001;5:407-411.
20. Furlan AD, Van Tulder MW, Cherkin DC, Tsukayama H, Lao L, Koes BW, Berman BM. *Acupuncture and dry-needling for low back pain. Cochrane Database of Systematic Reviews (*2005), Issue 1. Art. No.: CD001351. DOI: 10.1002/14651858.CD001351.pub2.
21. Salinas JD Jr. Rosenburg JN. Corticosteroid Injections of Joints and Soft Tissues. Accessed May 2012 at: http://emedicine.medscape.com/article/325370-print
22. Venancio RA, Alencar FG, Zamerini C. Different substances and dry-needling injections in patients with myofascial pain and headaches. Different substances and dry-needling injections in patients with myofascial pain and headaches. Cranio April, 2008:96-103.
23. Cummings M, White AR. Needling therapies in the management of myofascial trigger point pain: a systematic review. Arch Phys Med Rehab July, 2001;82:986-992.
24. Kim PS. Role of injection therapy: Review of indications for trigger point injections, regional blocks, facet joint injections, and intra-articular injections. *Curr Opin Rheumatol* 2002;14(1):52-7.
25. Lavelle, E.D., Lavelle, W., Smith, H.S., *Myofascial Trigger Points*. The Medical Clinics of North America 91. (2007) pp. 229-239.
26. Manchikanti L et al, Interventional Techniques in the Management of Chronic Pain, Pain Physician, Volume 4, Number 1, 2001
27. Lavelle, E.D., Lavelle, W., Smith, H.S., *Myofascial Trigger Points*. The Medical Clinics of North America 91. (2007) pp. 229-239.
28. High mark Medical Services. LCD L27540-Trigger Point Injections. Medicare Part A & B. Accessed May 2012 at: http://www.highmarkmedicareservices.com/policy/mac-ab/l27540-r4.html
29. Palmetto BA. Trigger. LCD for Trigger Point Injections (L28310): Accessed on 10-12-2009 from: http://www.cms.hhs.gov/mcd/viewlcd_pdf.asp?lcd_id=28310&lcd_version=14&contractor_id=177
30. Esenyel M, Caglar , Aldemir T. Treatment of myofascial pain. Am Journal Physical Med Rehab. 2000;79(1):48-52
31. Institute for Clinical Systems Improvement. Health Care Guideline: Assessment and Management of Chronic Pain. Third Edition July, 2008. Accessed May 2012: http://www.icsi.org/pain__chronic__assessment_and_management_of_14399/pain__chronic__assessment_and_management_of__guideline_.html
32. Scott A, Guo B. Trigger Point Injections for chronic non-malignant musculoskeletal pain, health technology assessment. Alberta Heritage Foundation for Medical Research. January, 2005; Accessed May 2012 at: http://www.ihe.ca/documents/HTA35.FINAL.pdf
33. Fomby, E., Morris, M., *Identifying and Treating Myofascial Pain Syndrome.* The Physician and Sports Medicine., Vol. 25, No.2

May 2012 Update

34. Hayes Medical Technology Directory. Trigger Point Injections for Myofascial Pain. Lansdale, PA: Hayes, Inc.; Dec 7, 2009. Updated Dec 5, 2012
35. Resnick DK, Choudhri TF, Dailey AT, et al. Guidelines for the performance of fusion procedures for degenerative disease of the lumbar spine. Part 1: introduction and methodology. J Neurosurg Spine. 2005a;2(6):637-638.
36. Resnick DK, Choudhri TF, Dailey AT, et al.; American Association of Neurological Surgeons/Congress of Neurological Surgeons. Guidelines for the performance of fusion procedures for degenerative disease of the lumbar spine. Part 13: injection therapies, low-back pain, and lumbar fusion. J Neurosurg Spine. 2005b;2(6):707-715.
37. Jarrell J, Vilos G, Allaire C, et al. SOGC Clinical Practice Guidelines: Consensus Guidelines for the Management of Chronic Pelvic Pain. J Obstet Gynaecol Can. 2005;27(9):869-887.
38. 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 2010 Apr;112(4):810-33.
39. Centers for Medicare & Medicaid Services. LCD for Trigger Point Injections L27540. Accessed May 2012 at: http://www.cms.gov/medicare-coverage-database/overview-and-quick-

search.aspx?CoverageSelection=Both&ArticleType=All&PolicyType=Final&s=All&KeyWord=trigger+point+injections&KeyWordLookUp=Title&KeyWordSearchType=And&bc=gAAAAAAAAAAA&=&
40. Institute for Clinical Systems Improvement (ICSI) [website]. Health Care Guideline: Assessment and Management of Chronic Pain. 3rd ed. Nov 2011. Accessed May 2012 at: http://www.icsi.org/pain__chronic__assessment_and_management_of_14399/pain__chronic__assessment_and_management_of__guideline_.html
41. Cotchett MP et al. Effectiveness of dry needling and injections of myofascial trigger points associated with plantar heel pain: a systematic review. J Foot Ankle Res. 2010 Sep 1;3:18.
42. American College of Occupational and Environmental Medicine. Chronic pain. In: Occupational medicine practice guidelines: evaluation and management of common health problems and functional recovery in workers. Elk Grove Village (IL): American College of Occupational and Environmental Medicine (ACOEM); 2008. p. 73-502.
43. UpToDate. Chou R. Subacute and chronic low back pain: Nonsurgical interventional treatment. March 29, 2012.
44. Advanced Medical Review (AMR): Policy reviewed by MD board certified in Pain Management. June 19, 2012
45. McKesson InterQual Clinical Evidence Summary. Myofascial Pain Syndrome. 2011

2014 Update

46. Official Disability Guidelines (ODG). Trigger Point Injections. June 10, 2014