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DATE OF REVIEW: 11/25/2009

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:

IRO - Diagnostic Mapping of Left Trapezius with EMG guide

Partial approval:

Trigger Point injections are warranted.

EMG guidance is not warranted.

A DESCRIPTION OF THE QUALIFICATIONS FOR EACH PHYSICIAN OR OTHER HEALTH CARE PROVIDER WHO REVIEWED THE DECISION:

This case was reviewed by a Texas licensed DO, specializing in Anesthesiology. The physician advisor has the following additional qualifications, if applicable:

ABMS Anesthesiology

REVIEW OUTCOME:

Upon independent review the reviewer finds that the previous adverse determination/adverse determinations should be:

Partially Overturned

Health Care Service(s) in Dispute	CPT Codes	Date of Service(s)	Outcome of Independent Review
IRO - Diagnostic Mapping of Left Trapezius with EMG guide Partial approval: Trigger Point injections <u>are</u> warranted. EMG guidance is <u>not</u> warranted.	20552, 95874	-	Partially Overturned

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INFORMATION PROVIDED TO THE IRO FOR REVIEW:

No	Document Type	Provider or Sender	Page Count	Service Start Date	Service End Date
1	IRO Record Receipt		5	11/10/2009	11/10/2009
2	Initial Denial Letter		9	10/22/2009	11/05/2009
3	Diagnostic Test		1	05/04/2009	05/04/2009
4	IRO Requestor Records		5	11/10/2009	11/10/2009
5	IRO Request		3	11/09/2009	11/09/2009
6	Op Report		2	08/13/2009	08/13/2009
7	Office Visit Report		22	07/20/2009	11/03/2009
8	Office Visit Report		3	06/25/2009	06/25/2009
9	Office Visit Report		4	05/22/2009	05/22/2009

PATIENT CLINICAL HISTORY [SUMMARY]:

This female sustained a accident in xx/xx The patient has history of hypertension. She has not had surgery. She has known neck, back, and left shoulder derangement. She had a lumbar epidural steroid injection (ESI) recently. She is on attending physical therapy, and working. Her cervical MRI showed an annular tear at C5/6 which Dr. did not feel was pathologic. On 10/20 he noted taut bands and referral of pain with palpation in her left trapezius area. He is suggesting trigger point injections (TPIs) with an electromyogram (EMG) mapping.

ANALYSIS AND EXPLANATION OF THE DECISION INCLUDE CLINICAL BASIS, FINDINGS AND CONCLUSIONS USED TO SUPPORT THE DECISION:

The MD has documented myofascial pain in her left trapezius that would warrant TPIs as per ODG (up to 4 injections). However, there is no need for EMG mapping of this as TPIs are a musculoskeletal not neurologic injection, EMG guidance is not supported or necessary for doing TPIs, and TPIs themselves are diagnostic and therapeutic.

Partial approval:

Trigger Point injections are warranted.

EMG guidance is not warranted.

A DESCRIPTION AND THE SOURCE OF THE SCREENING CRITERIA OR OTHER CLINICAL BASIS USED TO MAKE THE DECISION:

ODG: Neck Chapter and Pain Chapter

Recommended for myofascial pain syndrome as indicated below, with limited lasting value. The advantage appears to be in enabling patients to undergo remedial exercise therapy more quickly. The primary goal of trigger point therapy is the short-term relief of pain and tightness of the involved muscles in order to facilitate

participation in an active rehabilitation program and restoration of functional capacity. TPIs are generally considered an adjunct rather than a primary form of treatment and should not be offered as either a primary or a sole treatment modality. (Scott, 2005) See [Myofascial pain](#). A recent systematic review came to the conclusion that the efficacy of TPIs was no more certain than it was a decade ago, and that there continued to be no clear cut evidence of either benefit or ineffectiveness. There is no evidence-based or consensus research to suggest an optimal technique. The mechanism of inactivation of the trigger point remains unknown. Many consider dry needling as effective as a TPI. It has been suggested that the main effect is placebo. (Cummings, 2001) There are no studies that compare “stretching” treatment alone or “no treatment” to TPIs. Most current studies have evaluated the use of a TPI as a stand-alone treatment. (Scott, 2008) (Staal, 2008)

Indications: The main indication is to inactivate the trigger point in order to reduce pain and restore function. This may enable physical therapy. The injection is also used as a diagnostic tool. (Scott, 2008) *Whiplash and chronic head, neck, shoulder and back pain:* The evidence for TPIs when used as a sole treatment for patients with whiplash syndrome or chronic head, neck, shoulder or back pain (regardless of injectate) is inconclusive and the treatment does not appear to be more effective than treatments such as laser or ultrasound. These injections are not recommended for typical chronic low back or neck pain, nor are they recommended for radicular pain. *Fibromyalgia:* There is no evidence to support trigger point injections for this condition using randomized controlled trials. Uncontrolled trials suggest that dry needling or soft-tissue injections with lidocaine are equally effective. (Goldenberg, 2004) *Cervicogenic headaches:* The effectiveness is unknown. (Scott, 2005) *Osteoarthritis:* There is one randomized controlled trial that indicates that the addition of TPIs to intra-articular injections improves pain and function over and above the latter injection alone. (Yentur, 2003)

Needling procedures: The standard definition of TPIs (also called direct wet needling) involves injecting fluid directly into the trigger point. (Cummings, 2001) Other needling techniques include injection of fluid over the trigger point into the skin or subcutaneous tissue, direct dry needling, or indirect dry needling (the needle is placed superficially or deep into classic acupuncture points or over a tender spot, but not into the trigger point). See [Acupuncture](#).

Injection fluids: The injection of a local anesthetic can reduce the pain of a trigger point. TPIs with an anesthetic such as bupivacaine are recommended for non-resolving trigger points. In addition, the addition of a local anesthetic can reduce the pain of injection. The addition of a corticosteroid is not generally recommended and there is moderate evidence that TPIs with corticosteroids do not produce significantly different results from placebo injections using short-term self reports. Current evidence does not support the use of Botulinum toxin in trigger point injections for myofascial pain. (Ho, 2007) (Peloso, 2007)

Adverse effects: The following have been published in case reports: cervical epidural abscess; accidental intrathecal injection; muscle atrophy at the injection site; pneumothorax; development of asystole. There is also a concern that when used as a primary therapy patients may become dependent on this treatment, diverting from the underlying factors causing and maintaining pain. (Borg-Stein, 2002) Vasovagal responses are the most frequent complication. Other complications include bleeding, cuts or tears to the muscle, injury to nerve fibers, damage to blood vessels, infection, and allergic reactions (including anaphylaxis).

Contraindications: Acute cases of muscle trauma; Allergies to anesthetic agents; Bleeding disorders; Local or systemic infection; Anticoagulant use.

Trigger point definitions: A trigger point is a hyperirritable foci located in a palpable taut band of skeletal muscle, which produces a local twitch in response to stimulus to the band. Pain is generally reported on compression, with common evidence of characteristic referred pain. This may or may not be accompanied by an autonomic response. Trigger points may be present in up to 33-50% of the adult population. There is currently no satisfactory objective, biochemical, electromyographic, or diagnostic imaging test to diagnosis trigger points. (Scott, 2008) *Active trigger point:* Continuous pain is generated in the zone of reference with or without palpitation. *Latent trigger point:* No evidence of spontaneous pain but evidence of restricted movement and muscle weakness. *Primary trigger point:* develop independently of other trigger points. *Satellite trigger points:* result from stress and muscle spasm caused by neighboring trigger points. (Scott, 2005) *Myofascial pain syndrome* is a regional painful muscle condition with a direct relationship between a specific trigger point and its associated pain region. A cluster of symptoms is noted including pain, autonomic phenomena and muscle dysfunction. Examples of primary myofascial pain syndrome include tennis elbow, frozen shoulder and chronic tension type headache. Secondary myofascial pain is found in the presence of conditions such as whiplash, TMJ dysfunction, and osteoarthritis. Psychosocial factors may

contribute to muscle tension and an increase in pain, in particular, anxiety. ([Esenyel, 2000](#)) ([Nifosi, 2007](#)) ([Altindag, 2008](#)) ([Graff-Radford, 2004](#)) ([BlueCross BlueShield, 2004](#)) ([Nelemans-Cochrane, 2002](#)) See also the [Low Back Chapter](#).

Criteria for the use of TPIs (Trigger point injections):

TPIs with a local anesthetic may be recommended for the treatment of chronic low back or neck pain with myofascial pain syndrome when all of the following criteria are met: (1) Documentation of circumscribed trigger points with evidence upon palpation of a twitch response as well as referred pain; (2) Symptoms have persisted for more than three months; (3) Medical management therapies such as ongoing stretching exercises, physical therapy, NSAIDs and muscle relaxants have failed to control pain; (4) Radiculopathy is not present (by exam, imaging, or neuro-testing); (5) No more than 3-4 injections per session; (6) No repeat injections unless a greater than 50% pain relief with reduced medication use is obtained for six weeks after an injection and there is documented evidence of functional improvement; (7) Frequency should not be at an interval less than two months; (8) TPIs with any substance (e.g., saline or glucose) other than local anesthetic with or without steroid are not recommended; (9) There should be evidence of continued ongoing conservative treatment including home exercise and stretching. Use as a sole treatment is not recommended; (10) If pain persists after 2 to 3 injections the treatment plan should be reexamined as this may indicate a lack of appropriate diagnosis, a lack of success with this procedure, or a lack of incorporation of other more conservative treatment modalities for myofascial pain. It should be remembered that trigger point injections are considered an adjunct, not a primary treatment