



August 21, 2020

RE: Request for Payment for Dry Needling by Physical Therapists

Dear Dr. Keshishian,

APTA Michigan requests BCBSM's coverage of/payment for physical therapist performance of dry needling using the recently established Common Procedural Terminology codes [20560 – Needle insertion(s) without injection(s), 1 or 2 muscle(s); 20561 – Needle insertion(s) without injection(s), 3 or more muscle(s)].

Dry needling is a skilled intervention that uses a thin filiform needle to penetrate the skin and stimulate underlying myofascial trigger points, muscular, and connective tissues for the management of neuromusculoskeletal pain and movement impairments. Dry needling is a technique used to treat dysfunctions in skeletal muscle, fascia, and connective tissue, and, diminish persistent peripheral nociceptive input, and reduce or restore impairments of body structure and function leading to improved activity and participation.

As an important adjunct to manual therapy techniques, dry needling improves pain control, reduces muscle tension, normalizes biochemical and electrical dysfunction of motor endplates, and facilitates an accelerated return to active rehabilitation. Research evidence is clear that dry needling is at least as effective as other modalities that are currently covered by BCBSM. The superior effects of dry needling are most evident early in the course of treatment, which allows for patients to better participate in therapeutic exercise/active rehabilitation interventions.

Dry needling is a widely accepted rehabilitative procedure included in physical therapist practice as outlined by the following documents included in this email containing this letter:

APTA Policies, Positions, and Resource Papers:

Description of Dry Needling: An Educational Resource Paper

The Guide to Physical Therapist Practice 3.0:

<http://guidetoptpractice.apta.org/content/1/SEC38.body>

FSBPT Resource Paper:

Analysis of Competencies for Dry Needling by Physical Therapists

The Michigan Public Health Code defines dry needling as a rehabilitative procedure (MCL 333.16501(g)), does not restrict its use only by acupuncturists (MCL 333.16513(2)(e)), and physical therapist practice includes the use of rehabilitative procedures (MCL 333.17801(1)(d)).

Research clearly supports the use of dry needling as an effective intervention alone and as an adjunct to other physical therapist interventions, especially manual therapy. ***The following summarizes the current state of the scientific literature, which includes 19 different systematic reviews/meta-analyses covering nearly 300 clinical trials and over 14,000 patients:***

1. In a systematic review/meta-analysis of 23 studies with 1,883 total patients with myofascial pain and trigger points, dry needling was:
 - ***At least as effective as other treatments and more so than sham/no treatments for the reduction of pain, as well as increasing pain pressure threshold.***
Charles D, Hudgins T, MacNaughton J, Newman E, Tan J, Wigger M. A systematic review of manual therapy techniques, dry cupping and dry needling in the reduction of myofascial pain and myofascial trigger points. *J Bodyw Mov Ther.* 2019;23:539-546.
2. In a systematic review/meta-analysis of 7 studies with 199 total patients with orofacial pain associated with a diagnosis of temporomandibular dysfunction, dry needling:
 - ***Showed superior effects compared to sham treatment for pain pressure threshold.***
 - ***Was superior to other interventions for pain intensity.***
Vier C, de Almeida M, Neves M, dos Santos A, Bracht M. The effectiveness of dry needling for patients with orofacial pain associated with temporomandibular dysfunction: a systematic review and meta-analysis. *Braz J Phs Ther.* 2019;23:3-11.
3. In a systematic review/meta-analysis of 21 studies with 977 total patients, the effects of needling therapies on the production of muscle force were analyzed, and dry needling:
 - ***Showed moderate evidence for an increase in force production in sedentary workers with non-specific neck pain.***
 - ***Yielded an increase in cervical isometric force production.***
Mansfield CJ, Vanetten L, Willy R, di Stasi S, Magnussen R, Briggs M. The Effects of Needling Therapies on Muscle Force Production: A Systematic Review and Meta-analysis. J Ortho Sports Phys Ther. 2019;49:154-170.
4. In a systematic review/meta-analysis of 16 studies with 1233 total patients with low back pain, dry needling was found to be superior to:
 - ***Sham treatments for pain intensity and functional disability post-intervention.***
 - ***Sham treatment for pain intensity at follow-up.***
 - ***Acupuncture at post-intervention.***
Hu H, Gao H, Ma R, Zhao X, Tian H, Li L. Is dry needling effective for low back pain? A systematic review and PRISMA-compliant meta-analysis. Med. 2018;97:e11225.
5. In a systematic review/meta-analysis of 11 studies with 802 total patients with myofascial trigger points stemming from low back dysfunction, dry needling:
 - ***Resulted in significantly lower pain intensity and functional disability post-intervention.***
Liu Q, Liu L, Huang Q, et al. Evidence for dry needling in the management of myofascial trigger points associated with low back pain: A systematic review and meta-analysis. *Arch Phys Med Rehabil.* 2018;99:144-152.e2.

6. In a systematic review/meta-analysis of 11 studies with 496 total patients with upper extremity pain and dysfunction, dry needling:
 - ***Of latent and active trigger points in the infraspinatus is superior to just dry needling the active points for reduction of shoulder pain and increasing pain pressure threshold.***
 - ***Resulted in a significant reduction in shoulder pain, with this reduction remaining significant at post treatment and up to 10 weeks after the initial treatment.***
Hall ML, Mackie AC, Ribeiro DC. Effects of dry needling trigger point therapy in the shoulder region on patients with upper extremity pain and dysfunction: a systematic review with meta-analysis. *Physiotherapy*. 2018;104:167-177.

7. In a systematic review/meta-analysis of 18 studies with patients with temporomandibular myofascial pain, dry needling:
 - ***Yielded a greater improvement in pain pressure threshold and maximal mouth opening when compared with placebo needling.***
 - ***Presents a lower cost when compared with other types of treatment.***
Machado P, Machado E, Wandscher VF, Marchionatti AME, Zanatta FB, Kaizer OB. A systematic review of different substance injection and dry needling for treatment of temporomandibular myofascial pain. *Int J Oral Maxillofac Surg*. 2018;47:1420-1432.

8. In a randomized controlled trial of 50 patients with subacromial pain syndrome, the cost-effectiveness of incorporating dry needling into an exercise program demonstrated the following:
 - ***Participants in the exercise-only group had a greater number of visits with a physician, as well as more treatment sessions compared with the exercise + dry needling group.***
 - ***Absenteeism from paid labor was statistically higher in the exercise only group, with a greater number of subjects requiring a greater number of days off from work.***
 - ***Mean cost per subject was more was statistically higher in the exercise-only group.***
 - ***The exercise + dry needling group was found to be less costly and more effective than the exercise-only group.***
 - ***The exercise + dry needling group reported a higher quality of life.***
Arias-Buría JL, Martín-Saborido C, Cleland J, Koppenhaver SL, Plaza-Manzano G, Fernández-de-las-Peñas C. Cost-effectiveness evaluation of the inclusion of dry needling into an exercise program for subacromial pain syndrome: Evidence from a randomized clinical trial. *Pain Medicine*. 2018;19:2336-2347.

9. In a systematic review/meta-analysis of 13 studies with 723 total patients with trigger points associated with a variety of musculoskeletal conditions, dry needling:
 - ***Was found to have a statistically significant treatment effect on pain, pain pressure threshold and functional outcomes immediately and at 12-week follow-up when compared with the no-treatment, control or sham groups.***
 - ***Is at least as effective for pain reduction and increasing pain pressure threshold as compared with other treatments immediately and at 12 weeks.***
Gattie E, Cleland JA, Snodgrass S. The effectiveness of trigger point dry needling for musculoskeletal conditions by physical therapists: A systematic review and meta-analysis. *J Ortho Sports Phys Ther*. 2017;47:133-149.

10. In a systematic review/meta-analysis of 15 studies with 761 total patients with myofascial trigger points, dry needling:
 - ***Is effective for relieving pain, increasing pain pressure threshold and range of motion in the neck/shoulder, and improving quality of life in the short-term when compared with sham, placebo, or no intervention.***
 - ***Yielded a reduction in Visual Analogue Scores by at least the minimal clinically important difference for the majority of the studies.***
Espejo-Antúnez L, Tejada JF, Albornoz-Cabello M, et al. Dry needling in the management of myofascial trigger points: A systematic review of randomized controlled trials. *Complement Ther Med.* 2017;33:46-57.

11. In a systematic review/meta-analysis of 6 studies with 301 total patients with muscular trigger points in the lower quarter, dry needling:
 - ***Was effective for pain reduction in the lower quarter in the short-term.***
 - ***Showed potential to result in pain reduction when combined with other interventions (such as with strengthening and stretching).***
Morihsa R, Eskew J, McNamara A, Young J. Dry needling in subjects with muscular trigger points in the lower quarter: A systematic review. *Int J Sports Phys Ther.* 2016;11:1-14.

12. In a systematic review/meta-analysis of 15 studies with patients complaining of neck pain associated with trigger points in the upper trapezius, dry needling:
 - ***Had a short-term effect on pain-reduction.***
 - ***Was superior to placebo, active ROM exercises and non-tender point acupuncture.***
 - ***Had similar effects on improving cervical range of motion when compared with lidocaine.***
Cagnie B, Castelein B, Pollie F, Steelant L, Verhoeven H, Cools A. Evidence for the use of ischemic compression and dry needling in the management of trigger points of the upper trapezius in patients with neck pain: A systematic review. *Am J Phys Med Rehab.* 2015;94:573-583.

13. In a systematic review/meta-analysis of 20 studies with 839 total patients with neck and shoulder pain, dry needling of myofascial trigger points:
 - ***Was superior to control/sham groups in the short and medium terms for relieving pain related to trigger points.***
 - ***Yield similar results as wet needling/other treatments in the short and long term.***
Liu L, MSc, Huang, Qiang-Min, MD, PhD, Liu Q, MSc, et al. Effectiveness of dry needling for myofascial trigger points associated with neck and shoulder pain: A systematic review and meta-analysis. *Arch Phys Med Rehabil.* 2015;96:944-955.

14. In a systematic review/meta-analysis of 19 studies with 1062 total patients with trigger point-related pain in various regions of the body, dry needling:
 - ***Was more effective in relieving trigger point pain in multiple body regions, and to be superior to stretching or PENS in diminishing trigger points.***
 - ***Was at least as effective as manual release or use of other needling treatments in managing trigger points.***

- ***Had potential to improve tolerance to other interventions, thus allowing for increased acceleration of therapy with longer-lasting results.***

Boyles R, Fowler R, Ramsey D, Burrows E. Effectiveness of trigger point dry needling for multiple body regions: a systematic review. J Man Manip Ther. 2015;23:276-293.

15. In a systematic review/meta-analysis of 17 studies with 944 total patients with chronic trapezius myalgia, dry needling:

- ***Was superior to sham dry needling, with significant clinically important changes in pain in the short-term.***

Nunes AMP, Moita, João Paulo Azinheira Martins. Effectiveness of physical and rehabilitation techniques in reducing pain in chronic trapezius myalgia: A systematic review and meta-analysis. Int J Osteopath Med. 2015;18:189-206.

16. In a systematic review/meta-analysis of 3 studies with 76 total patients with cervicogenic or tension-type headache, dry needling:

- ***Was effective in managing tension-type or cervicogenic headaches when combined with other treatments.***

France S, Bown J, Nowosilskyj M, Mott M, Rand S, Walters J. Evidence for the use of dry needling and physiotherapy in the management of cervicogenic or tension-type headache: A systematic review. Cephalalgia. London, England: SAGE Publications; 2014;34:994-1003.

17. In a systematic review/meta-analysis of 5 studies with 266 total patients with trigger points in the neck and shoulders, dry needling:

- ***Reduced Visual Analogue Scores at 3 and 6 month follow-up.***
- ***Was as effective as lidocaine injections for improving pain intensity and activity levels, indicating that dry needling would be better than lidocaine, as it is less invasive, expensive, and less likely to result in the occurrence of adverse events.***

Ong J, BPhy, Claydon, Leica S., PhD, PG Cert Tert Teach, BSc (Hons). The effect of dry needling for myofascial trigger points in the neck and shoulders: A systematic review and meta-analysis. J bodyw mov ther. 2013;2014;18:390-398.

18. In a systematic review/meta-analysis of 35 studies with 2861 total patients with low back pain, dry needling and acupuncture:

- ***Were potentially effective adjuncts when combined with other treatments for improving chronic low back pain.***

Furlan AD, van Tulder M, Cherkin DC, et al. Acupuncture and dry-needling for low back pain: An updated systematic review within the framework of the Cochrane Collaboration. Spine. 2005;30:944-963.

19. In a systematic review/meta-analysis of 38 studies with 1,372 total patients with myofascial trigger point pain, dry needling:

- ***Had a similar treatment effect as wet needling, indicating that safety and patient comfort level should be considered when making a decision between the use of dry or wet needling.***

Cummings TM, White AR. Needling therapies in the management of myofascial trigger point pain: A systematic review. Arch Phys Med Rehabil. 2001;82:986-992.



20. In a systematic review/meta-analysis of 7 studies with 320 total patients with lateral epicondylagia, dry needling:

- ***Reduced pain intensity and related disability compared to a comparative group***

Navarro-Santana MJ, Sanchez-Infante J, Gómez-Chiguano GF, et al. Effects of trigger point dry needling on lateral epicondylagia of musculoskeletal origin: a systematic review and meta-analysis [published online ahead of print, 2020 Jun 23]. Clin Rehabil. 2020;269215520937468. doi:10.1177/0269215520937468

Thank you for your consideration of this request.

Sincerely,

A handwritten signature in black ink that reads "Michael Shoemaker".

Michael J. Shoemaker, PT, DPT, PhD
President
APTA Michigan