Clinical Practice Guideline: **Interdigital Excision and Nerve Implantation for Morton's Neuroma**

Date of Implementation: **November 19, 2015**

Product: **Specialty**

GUIDELINES

American Specialty Health – Specialty (ASH) considers services consisting of CPT Codes 28080 and 64787 to be medically necessary for treatment of Morton's neuroma **upon meeting ALL of the following criteria:**

1. Diagnosis of lesion of plantar nerve (interdigital neuroma) (G57.61 - G57.63)
2. Failure of **at least 2 of the following** non-operative treatments:
   - Physical therapy
   - Orthotics
   - Medications
   - Injections

CPT CODES AND DESCRIPTIONS

CPT® Code	CPT® Code Description
28080	Excision, interdigital (Morton) neuroma, single, each
64787	Implantation of nerve end into bone or muscle (list separately in addition to neuroma excision)

BACKGROUND

Morton's Neuroma

Morton's neuroma, a painful peripheral neuropathy, typically affects the common digital nerve and its branches in the third plantar webspace. It is a common condition mainly affecting middle aged women, and there are many proposed etiological theories involving chronic repetitive trauma, ischemia, entrapment, and intermetatarsal bursitis. Histological examination reveals the etiology to be perineural fibrosis, inflammatory tissue surrounding the nerve.

Diagnosis is usually made through history taking and clinical examination (i.e., by eliciting the Mulder's sign). Care must be taken to rule out other possible etiologies of symptoms in this area of the forefoot.

Current proposed non-operative treatment strategies include shoe-wear modifications, activity modification, orthotics/splints/taping, anti-inflammatory medications (e.g.,

NSAIDS). More invasive options include injections of local anesthetic agents, sclerosing agents, neurolytic agents, and steroids. If conservative treatments fail to relieve pain and restore function, then surgical treatment options may be considered.

Operative management options primarily involve either nerve decompression or neurectomy (complete excision of the affected part of the interdigital nerve) Additionally, the proximal end of the nerve can be transposed and implanted into an intrinsic muscle in the arch of the foot (e.g., flexor digitorum brevis) in addition to the excision of the neuroma to prevent recurrence of the neuroma. Excision of the affected part of the interdigital nerve, when performed in combination with transposition of the transected proximal nerve stump, may improve patient satisfaction rates. Given the range of surgical options, nerve decompression surgery tends to yield the highest rates of complete resolution of symptoms with fewer complications associated with sensory disturbance. (Jain et al., 2013).

Interdigital nerve excision is the most commonly used surgical treatment which is carried out via a dorsal or plantar approach. The plantar approach is often used in cases of neuroma recurrence as it provides better visualization of the proximal nerve trunk. A plantar incision is made just proximal to the webspace and extends at least 4 cm proximally. The incision is extended between the metatarsal heads to avoid scarring the bony prominences. Alternatively, using the dorsal approach, a dorsal incision is made in the interspace between the affected metatarsals. The 3-4 cm longitudinal incision is taken down through the skin and subcutaneous tissues. The surgeon must take care to identify and retract away the dorsal sensory branch of the intermediate dorsal cutaneous branch of the superficial peroneal nerve.

Faraj et al. (2010) carried out a retrospective review of the patient records of one orthopedic foot and ankle surgeon, identifying thirty-six patients (42 feet) who had been treated operatively for a primary, persistently painful interdigital neuroma. Pain, weight bearing, wound problems and rehabilitation period were studied. The overall satisfaction for surgery was rated as excellent or good in 85% of the thirty-six patients. The study concluded that resection of a symptomatic interdigital neuroma through either a dorsal or a plantar approach can result in a good outcome. Poppler et al. (2018) conducted a comparative meta-analysis to identify and assess the available information on the outcomes of surgical treatment of painful neuromas. Overall, surgical treatment of neuroma pain was effective in 77% of patients [95% confidence interval: 73-81]. No significant differences were seen between surgical techniques. Among studies with a mean pain duration greater than 24 months, or median number of operations greater than 2 prior to definitive neuroma pain surgery, excision and transposition or neurolysis and coverage were significantly more likely than other operative techniques to result in a meaningful reduction in pain ($P < 0.05$). Standardization in the reporting of surgical techniques, outcomes, and confounding factors is needed in future studies to enable

providers to make comparisons across disparate techniques in the surgical treatment of neuroma pain.

All treatments may have complications, with either ineffective relief of symptoms or worsening of the condition. Surgical failures may require additional surgical intervention. A plantar longitudinal incision provides optimal exposure, and transposition of the nerve stump into bone or muscle and avoids traction or pressure on the nerve (Richardson et al., 2014; Gougoulias et al., 2019.

Recurrent neuroma formation is a complication associated with Morton's neuroma treatment. This may be caused by inadequate proximal resection of the common digital nerve. This neuroma is then trapped by the metatarsal heads, compressed, and causes pain. In re-operation for recurrent neuroma, the nerve stump can be transplanted in the intrinsic musculature of the foot.

PRACTITIONER SCOPE AND TRAINING

Practitioners should practice only in the areas in which they are competent based on their education, training and experience. Levels of education, experience, and proficiency may vary among individual practitioners. It is ethically and legally incumbent on a practitioner to determine where they have the knowledge and skills necessary to perform such services and whether the services are within their scope of practice.

It is best practice for the practitioner to appropriately render services to a member only if they are trained, equally skilled, and adequately competent to deliver a service compared to others trained to perform the same procedure. If the service would be most competently delivered by another health care practitioner who has more skill and training, it would be best practice to refer the member to the more expert practitioner.

Best practice can be defined as a clinical, scientific, or professional technique, method, or process that is typically evidence-based and consensus driven and is recognized by a majority of professionals in a particular field as more effective at delivering a particular outcome than any other practice (Joint Commission International Accreditation Standards for Hospitals, 2020).

Depending on the practitioner's scope of practice, training, and experience, a member's condition and/or symptoms during examination or the course of treatment may indicate the need for referral to another practitioner or even emergency care. In such cases it is prudent for the practitioner to refer the member for appropriate co-management (e.g., to their primary care physician) or if immediate emergency care is warranted, to contact 911 as appropriate. See the *Managing Medical Emergencies (CPG 159 – S)* policy for information.

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