Client: HMSA: PQSR 2009

Measure Title: AVOIDANCE OF STEROID INJECTIONS FOR PLANTAR FASCIITIS

Disease State: Plantar Fasciitis

**Indicator Classification**

Strength of Recommendation: B

Organizations Providing Recommendation:
- American Academy of Family Physicians
- American College of Foot and Ankle Surgeons

Clinical Intent: To ensure that members diagnosed with plantar fasciitis receive less than 3 steroid injections annually.

Physician Specialties (suggested):
Refer to PQSR 2009 Clinical Measures by Specialty.

Background: Disease Burden

- Plantar fasciitis is the most common cause of inferior heel pain, and it is estimated that it accounts for 11-15% of all foot symptoms requiring professional care among adults.[1, 2]
- The incidence of plantar fasciitis peaks in people between the ages of 40-60 in the general population.[3, 4] It affects approximately 10% of runners [5], and is common at a younger age in this group.[3, 6]

Reason for Indicated Intervention or Treatment

- Corticosteroid injections to treat plantar fasciitis should be used judiciously. In a study of 765 patients with plantar fasciitis, approximately 10% experienced plantar fascia ruptures after receiving steroid injections.[7] The majority of the patients with plantar fascia ruptures developed long-term complications, such as longitudinal arch strain.[7, 8] Other complications have also been cited in the literature.[9, 10]
- There are many conservative treatment options for plantar fasciitis, such as rest, stretching and strengthening exercises, non-steroidal anti-inflammatory drugs (NSAIDs), night splints, below the knee casts, and orthoses such as heel pads and arch supports.[11-13] Several studies support a conservative course of treatment focusing on stretching and training modification, use of orthotic insoles, and non-steroidal anti-inflammatory medicines.[12, 14]

Evidence Supporting Intervention or Treatment

- A 2002 Cochrane systematic review of 19 randomized controlled trials involving 1,626 patients with heel pain showed some
evidence for the effectiveness of injected corticosteroid in providing temporary relief of pain, but the injections seemed to be useful only to a small degree. The evidence for the superiority of corticosteroid injections over orthotic devices was limited. In addition, the quality of the studies examined was generally poor.[15]

- An outcomes assessment survey in which 411 patients with plantar fasciitis ranked the effectiveness of various nonsurgical treatment modalities indicated that in descending order of effectiveness, the short leg walking cast, steroid injections, rest, ice, runner’s shoe, crepe-soled shoe, aspirin or NSAIDs, and heel cushions provided the most favorable outcomes.[16]

- Overall, evidence for the effectiveness of local corticosteroid injections for plantar fasciitis is limited, and should generally not be considered before other, more conservative, options have been exhausted.[17]

- In comparison to at least one alternative, extracorporeal shock wave therapy, in a prospective, randomized, controlled, observer-blinded study of 132 subjects intralesional corticosteroid injection for plantar fasciopathy is efficacious and cost-effective.[18]

**Clinical Recommendations**

- Based on expert opinion, the American College of Foot and Ankle Surgeons issued a practice guideline in 2001 recommending initial treatment with calf-muscle stretching, over-the-counter heel cushions and arch supports, weight loss if indicated, activity limitations, and avoidance of flat shoes and barefoot walking. Other treatments may involve NSAIDs, foot padding and strapping, and corticosteroid treatments in appropriate patients.[19]

- After six weeks, the American College of Foot and Ankle Surgeons suggests that in addition to the initial measures, additional treatments may include customized orthotic devices, night splinting, casting, a fixed-ankle walker-type device during activity, and a limited number of corticosteroid injections.[19]

- The American Academy of Family Physicians concludes that “In general, we start by correcting training errors. This usually involves rest, the use of ice after activities, and an evaluation of the patient’s shoes and activities. Next we try correction of biomechanical factors with a stretching and strengthening program. If the patient still has no improvement, we consider night splints and orthodics. Finally, all other options [including steroid injection] are considered.”[20]
Denominator Definition
Continuously enrolled members ages 20 years or older by the end of the measurement year who were diagnosed with plantar fasciitis on 2 outpatient encounters (on different dates of service) during the year prior to the measurement year.

Denominator Exclusion Denominator Exclusion Definition N/A

Numerator Numerator Definition
Members who received 0, 1 or 2 steroid injections as treatment for plantar fasciitis during the year after the index date.

Physician Attribution
Physician Attribution Description
If the member receives 0, 1, or 2 steroid injections, score all physicians (in the selected specialties) who saw the member during the year after the index date.

If the member receives 3 or more steroid injections, score all physicians (in the selected specialties) who gave the 3rd or subsequent injections during the year after the index date.

References
9. Buccilli, T.A., Jr., H.R. Hall, and J.D. Solmen, Sterile abscess formation following a corticosteroid injection for the treatment


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