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Notice of Independent Review Decision

**March 29, 2013**

**IRO CASE #:**

**DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:**

Right foot outpatient surgery, neurectomy and external neurolysis scheduled originally for 12/20/12

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

Board Certified Orthopedic Surgeon

**REVIEW OUTCOME:**

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

Upheld (Agree)

Medical documentation **does not support** the medical necessity of the health care services in dispute.

Provide a description of the review outcome that clearly states whether medical necessity exists for each of the health care services in dispute.

**INFORMATION PROVIDED TO THE IRO FOR REVIEW:**

**PATIENT CLINICAL HISTORY [SUMMARY]:**

The patient is a male who reported an industrial injury on xxxxx, when a bucket fell on the right foot.

On April 10, 2012 performed removal of screws and plate from dorsal distal right second, third and fifth metatarsals of the right foot and also dorsal contracture release with capsular release and McGlamry dorsal plantar contracture releases of metatarsophalangeal (MTP) joints two, three, four and five of the right foot. Postoperative diagnosis was painful hardware irritations to dorsal aspect of the right forefoot, status post open reduction internal fixation (ORIF) of fracture dislocation of metatarsals two, three, four and five in the past and dorsal contractures of the second, third, fourth and fifth MTP joint of the right foot from

previous surgical changes with a nonunion of the right fourth metatarsal fixation site.

On April 13, 2012, the patient stated that he was doing better, although he had periodic pain. There was a spot under the wrapping the previous day that was aching and the patient scratched it. He had an open area where he scratched with his fingers. Dermatologic examination showed localized inflammation and pain on palpation and possible notable ecchymosis and edema. diagnosed edema, hardware irritation, joint instability and nonunion. He prescribed Norco and recommended starting physical therapy (PT)/rehabilitation.

On April 27, 2012, the patient stated he was doing better. Examination of the right foot showed pain with plantar flexion from second to fifth toes and reduced overall swelling. recommended resuming PT/rehabilitation and dispensed a rigid flat post-surgical shoe to stabilize the foot and prevent increased motion to forefoot joints.

On May 2, 2012, performed a designated doctor evaluation (DDE). Following additional summary is available in the report: *The patient was initially seen where x-rays revealed fractures to the second, third, fourth and fifth metatarsals on the right. An orthopedic referral was made but no medical reports were available for review. In October 2011, recommended surgery to stabilize the fractures. Postoperative follow-up was uneventful and no complications were noted. The patient's right foot was initially placed in a cast and then transitioned into a walking boot up through November 2011. PT continued up through early 2012. In February 2012, performed an initial DDE and placed the patient at maximum medical improvement (MMI) retroactive with 1% whole person impairment (WPI) rating. Despite being placed at MMI, the patient continued to experience severe right foot symptomatology and dysfunction. The patient then went to who referred the patient back. recommended removal of painful hardware. The patient had*

*right foot surgery and had participated in a PT program. The patient underwent right foot surgery on October 5, 2011, consisting of ORIF of the second, third, fourth and fifth metatarsal bones.* opined as follows: (1) The patient had not yet reached MMI. He had been recommended to be non-weightbearing for a period of 90 days following hardware removal surgery at the recommendation. Upon completion of this period, a short course of rehabilitative therapies was also anticipated to increase strength and flexibility.

On May 11, 2012, the patient stated that he had begun PT. He had a more aggressive therapist. performed trigger point injection (TPI)/cyst injection into the involved right second to fifth MTP joints and IMS area. He recommended using regular boots and also custom orthotics and continuing PT/rehabilitation.

On June 15, 2012, the patient stated that he continued to have moderate-to-severe pain in the foot. The foot continued to be very swollen. He stated he could not put full weight on the foot without experiencing pain in the plantar aspect. The patient's foot was casted for molding with plaster of Paris in a neutral position to make custom functional orthotic. recommended continuing PT/rehabilitation and requested an authorization for external bone stimulator to help with right fourth metatarsal nonunion healing.

On July 2, 2012, evaluated the patient for worsened ongoing complaints. There was increase in the severity of the right foot pain. The patient had been approved for 27 sessions of active therapy from May 1, 2012, through August 31, 2012. Examination of the right lower extremity showed a moderate degree of muscular hypertonicity of the right foot, fairly severe tenderness, a large degree of adhesions and moderate discernible edema at the right foot. stated that the patient's acute phase had passed and the condition had entered in an intermediate stage. He diagnosed crush injury of foot, closed fracture of metatarsal bones, unspecified neuralgia, neuritis and radiculitis; effusion of ankle and foot joint and articular cartilage disorder involving ankle and foot. He treated the patient with manual therapy, therapeutic exercise, neuromuscular re-education and kinetic activity.

On August 3, 2012, the patient stated that he continued to have moderate-to-severe pain in the foot. The foot continued to be very swollen. He continued to attend PT three times a week as instructed. performed alcohol nerve block around the interdigital nerve at the second and third IMS of the right foot. He also performed ultrasound in the areas of the foot/ankle to help reduce pain and swelling. recommended continuing custom orthotics and topical Lidoderm patch and ordered magnetic resonance imaging (MRI) of the right forefoot to assess posttraumatic neuroma formation to the right second and third intermetatarsal space.

On August 7, 2012, MRI of the right foot showed: (1) Extensive abnormalities and evidence of extensive surgery with hardware placement and removal. The great toe metatarsal base showed subchondral edema and cystic changes and a few cystic changes at the metatarsal head. (2) There was irregularity and edema

within the great toe median sesamoid possibly healed fracture. There was patchy irregular edema throughout the metatarsal shaft and edema greater at the metatarsal base, sparing the articular surface. There appeared to have been hardware placement which had been removed. There were still residual edema at the metatarsal base but no discrete fracture was seen. (3) There was edema within the proximal and mid metatarsal and evidence of a prior and current hardware. The metatarsal head showed a sclerotic line at the metatarsal head possibly avascular necrosis. There was also superior subluxation of the proximal phalanx suggesting joint capsular injury and likely plantar plate injury. This might be a source of pain. (4) There was metallic artifact. The hardware was still likely present. There was edema near the base, but no fracture could be seen. (5) There was hardware removal seen with irregularity and edema in and surrounding the screw holes.

On August 17, 2012, the patient stated that he continued to walk on lateral foot due to swelling. reviewed the MRI findings that revealed likely avascular necrosis of the right third metatarsal head. X-rays showed no significant sclerosis. The patient was placed in a Cam boot and told to remain off the foot as much as possible.

On September 7, 2012, the patient continued to have moderate-to-severe pain in the foot. There was a rash noted on his right dorsal foot which the patient stated was very itchy and irritating. performed alcohol nerve block around the interdigital nerve at the second and third IMS of right foot. He recommended an external bone stimulator to help with avascular necrosis of the third metatarsal head and continuing with pneumatic boot to offload forefoot.

On September 21, 2012, noted the patient had been wearing the Cam walking boot as instructed. He continued to have moderate-to-severe pain in the foot. X-rays showed questionable avascular necrosis of the right third metatarsal head with focal osteopenia to the right third and fourth metatarsal heads and contractures of second to fifth metatarsal joints. performed alcohol nerve block around the interdigital nerve at the intermetatarsal space of second and third digits. He recommended continuing the use of external bone stimulator and continuing the pneumatic boot.

On September 24, 2012, computerized tomography (CT) scan of the right foot without contrast showed: (1) Healed previous fractures of the second to fifth metatarsals. They were in near anatomic alignment, significantly improved from the study of 2011. (2) The second and third metatarsal shafts revealed evidence of previous fixation with hardware removal and appeared entirely healed. There was, however, some erosive-type change with scalloping near the head of the distal third metatarsal with respect to second metatarsal head suggesting that these might actually be subluxing against each other and impacting. (3) There were some early secondary arthritic changes within the MTP joints of the second and third digits. (4) The fourth metatarsal had screw and plate fixation transfixing the previously noted fracture with either two separate plates, one of which appeared to be overriding the other, or perhaps discontinuity of a single plate with

elevation and overriding. This was just in the area of thickened cortex in the midshaft of the fourth metatarsal. (5) There had been interval healing of the previously noted fracture of the distal fifth metatarsal with only minimal deformity without obvious pathology. (6) There appeared to be a small osteochondral defect at the base of the first metatarsal on its lateral aspect with early osteoarthritic change at the articulation with the adjacent tarsal bone. (7) Within the third metatarsal, there was no evidence to suggest avascular necrosis. Specifically, the area of abnormal signal intensity on previous MRI was almost certainly an area of healing of an old fracture and not suggestive of avascular necrosis.

On September 24, 2012, x-rays of the right foot showed: (1) Previously noted fractures of the second through fifth metatarsals had healed without evidence of nonunion, residual or recurrent fracture. (2) There was persistent screw and plate fixation within the fourth metatarsal shaft with either an overriding second plate and/or discontinuous plate with slight overriding near the mid portion. This was seen in an area of cortical thickening of the fourth metatarsal. (3) There were some erosive changes around the second and third MTP joints and to a lesser extent fourth MTP joint with possible erosion of the head of the third metatarsal into the lateral aspect of the head of the second metatarsal. (4) There were no specific plain film findings that suggested avascular necrosis within the midfoot including third metatarsal with evidence of previous hardware fixation and removal within the second, third and fifth metatarsals which were in near anatomic alignment. (5) There was an osteochondral defect noted at the base of the first metatarsal with associated osteoarthritic change at the tarsometatarsal articulation. This was noted on patient's previous examination of the foot of 2011, and presently showed increased sclerosis and progression of arthritic change. This was actually suspected to represent a vertically-oriented fracture on prior study, but was probably more likely an osteochondral defect.

On September 25, 2012, nuclear medicine bone scan showed: (1) Tracer activity within the visualized left ankle and foot that was unremarkable without obvious abnormality. (2) Initial angiographic and blood pool images within the right ankle and foot showed decreased blood flow relative to the left. This suggested possibility of in-flow disease more proximally. (3) There was increased radiotracer activity demonstrated within the right midfoot near the base of the first metatarsal on its lateral aspect which focally localized out to 24 hours probably representing a small osteochondral defect and associated osteoarthritic change at the articulation with the adjacent tarsal bone. This might also involve the articulation with the base of second metatarsal. This was described on MRI report as showing some subchondral edema and cystic change presumably the same area. (4) There was an additional area of slightly increased radiotracer activity seen at approximately the level of the head of the second and third metatarsals. There might be erosion at this level due to slight malalignment causing impaction of the second metatarsal head and third as noted on plain film exam. There was no evidence to suggest that this was a recurrent fracture or evidence of infectious process. This was not as pronounced on 24-hour imaging and therefore almost certainly arthritic in nature. (5) Additional area of slightly increased activity was

seen at approximately the level of the midshaft of the fourth metatarsal. This focally localized out to 24 hours and probably was associated with the patient's hardware which was transfixing an old fracture and showed discontinuity of the plate with slight overriding. Presumably, this was not entirely fixed in place and might cause mechanical stress on the adjacent bone which was noted to be somewhat thickened in diameter on plain film exam.

On October 19, 2012, evaluated the patient for foot pain. The patient was full weightbearing on the foot but limping. He had been getting injections in the foot. He was not able to tell that they were helping. He stated that he was still having a lot of pain. recommended continuing the use of external bone stimulator and also use of orthotic and supportive boots.

On November 2, 2012, the patient returned to the clinic with complaints of ongoing moderate-to-severe pain. The foot continued to be very swollen. The patient had been wearing regular work boots. The pain was constant but worse with weightbearing. recommended pain management evaluation to help deal with chronic pain.

On November 16, 2012, the patient stated that the pain was same. He still was having a lot of burning. He was not able to move his toes. There was +7/10 pain on direct and lateral compression of the intermetatarsal space second to fourth of the right foot. There was contracture with avascular necrosis of third metatarsal head deformity of the right foot. There was pain with plantar flexion of toes from second to fifth. There was reduced overall swelling. There was pain with palpation of the third metatarsal head. Sensory testing to modalities of pain showed evidence of loss to the right foot. There was right forefoot neuritis, with chronic nerve pain with numbness. There was notable pain on weightbearing and during ambulation. performed alcohol nerve block around the interdigital nerve at 2-3 IMS of right foot. He noted that all the conservative treatment options including several alcohol and steroid injections, custom orthotics, PT and rehabilitation, etc. had failed to resolve the neurogenic pain. He recommended neurectomy of the involved dorsal and plantar forefoot interdigital nerves with proximal nerve end implantation into muscles to help resolve the chronic pain. He would send a request for an authorization for neurectomy of sensory nerves of right foot/ankle to help resolve the pain.

Per utilization review dated December 13, 2012, the request for right foot neurectomy and external neurolysis was denied based on the following rationale: *"The Official Disability Guidelines does not address; however, an article in a journal of foot and ankle surgery states retrospective analysis of neurapraxia and axonotmesis injuries of select peripheral nerves of the foot and ankle and their conservative and surgical treatment reported surgical intervention only resulted in slightly better clinical outcome when compared to conservative therapies. Individuals undergoing surgery for a single nerve problem improved more than those who underwent surgery when two or more nerves were involved. Failure was most associated with multiple nerve injuries. The requesting physician is asking for neurectomy and external neurolysis of the right foot on more than one*

nerve. Based on the article in the journal of foot and ankle surgery, there is decreased success outcome when more than one nerve was operated on. Additionally, there is only slightly better improvement with surgery versus conservative measures. Based upon the medical documentation provided for review and the peer-reviewed evidence based guidelines, the request is not medically necessary. The request for neurectomy and external neurolysis of right foot is not certified.”

Per reconsideration review dated January 14, 2013, the appeal for right foot neurectomy and external neurolysis was denied by, based on the following rationale: “This is an appeal for neurectomy, external neurolysis of the right foot. ”The request was previously denied since an article in a journal of foot and ankle surgery states retrospective analysis of neurapraxia and axonotmesis injuries of select peripheral nerves of the foot and ankle and their conservative and surgical treatment reported surgical intervention only resulted in slightly better clinical outcome when compared to conservative therapies. Individuals undergoing surgery for a single nerve problem improved more than those who underwent surgery when two or more nerves were involved. Failure was most associated with multiple nerve injuries. The requesting physician is asking for neurectomy and external neurolysis of the right foot on more than one nerve. Based on the article in the journal of foot and ankle surgery, there is decreased success outcome when more than one nerve was operated on. Additionally, there is only slightly better improvement with surgery versus conservative measures. There was no updated documentation submitted for review addressing the above reason for non-certification. I spoke and discussed the case. He stated the patient has a clinical neuroma that has not resolved with standard injections and he would like to decompress the nerve via a neurectomy. The latest medical report dated November 16, 2012, showed persistent right foot pain. The patient underwent right foot open reduction internal fixation of fractures of second, third, fourth, and fifth metatarsals on October 5, 2011, with subsequent removal of hardware. Physical examination showed pain on direct and lateral compression of the second and fourth intermetatarsal space of the right foot. There are contractures with avascular necrosis of the third metatarsal head deformity. There is pain with plantar flexion of the second to fifth toes. There is reduced overall swelling with pain on palpation of the third metatarsal head. The patient underwent alcohol and Marcaine injection in the second to third intermetatarsal space of the right foot on November 16, 2012; however, the objective response was not submitted for review. There is also no evidence in the medical reports submitted of the patient's failure to respond to other non-surgical treatment modalities such as activity modification, bone stimulator, medications, footwear modifications, and smoking cessation. Also recent imaging studies of the right foot were not submitted for review. Based on these grounds, the medical necessity of the request has not been established.”

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

Is the request for a right foot outpatient surgery, neurectomy and external neurolysis scheduled originally for 12/20/2012 medically necessary?

A review of the records provided supports the claimant is a xx year old male industrial injury xx/xx/xx when a 1,000 pound bucket fell on his right foot. The claimant was treated with what appears to be open reduction internal fixation followed by removal of hardware. The claimant reported feeling better. The second surgery was 04/10/12. The claimant reported feeling better 04/13/12. The claimant began physical therapy. The claimant was previously found to be at Maximum Medical Improvement with 1% Whole Person Impairment. The claimant underwent a previous removal of hardware on 10/05/11 and removal of hardware 04/10/12 and it was felt the claimant was not yet MMI.

The claimant was treated with physical therapy and reported pain in the foot in May, June, July and August. The MRI of 08/07/12 showed post operative changes post traumatic changes, edema, and cystic changes. felt there was AVN of the third right metatarsal head, but the X-rays showed no sclerosis. The claimant was treated with a CAM Walker. The claimant was treated with an Alcohol Nerve Block 09/07/12 and 09/21/12. The CAT scan showed post traumatic post surgical changes with healed fractures and anatomic alignment. Specifically it was focused on the third metatarsal; there is no evidence of AVN.

A bone scan was obtained 09/25/12 mild areas of increased uptake were noted. was recommending bone stimulator, arthrotic, boots. The claimant reported 7/10 pain 11/16/12. The claimant failed conservative care and it was recommended a neurectomy. The request for neurectomy was denied on 12/13/12 by. The reconsideration was denied by DPM on 01/14/13 who spoke with.

In this case I would uphold the previous adverse determination, I do not feel has documented that nerve blocks gave meaningful relief of reported symptomatology specifically it was noted that he was not able to tell that the nerve block is helping thus would feel a neurectomy would not be likely to give relief of symptomatology give the previous adverse determinations and the rationale for the determine as I would uphold these at this time based on the records provided.

Should further records, diagnostics become available I will be happy to take this into consideration.

## **IRO REVIEWER REPORT TEMPLATE -WC**

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

- OTHER EVIDENCE BASED, SCIENTIFICALLY VALID, OUTCOME FOCUSED GUIDELINES (PROVIDE A DESCRIPTION)**