

<b>Case Number:</b>	CM13-0036521		
<b>Date Assigned:</b>	12/13/2013	<b>Date of Injury:</b>	10/01/2011
<b>Decision Date:</b>	02/07/2014	<b>UR Denial Date:</b>	09/26/2013
<b>Priority:</b>	Standard	<b>Application Received:</b>	10/21/2013

### HOW THE IMR FINAL DETERMINATION WAS MADE

MAXIMUS Federal Services sent the complete case file to a physician reviewer. He/she has no affiliation with the employer, employee, providers or the claims administrator. The physician reviewer is Board Certified in Pain Management, has a subspecialty in Disability Evaluation and is licensed to practice in California. He/she has been in active clinical practice for more than five years and is currently working at least 24 hours a week in active practice. The physician reviewer was selected based on his/her clinical experience, education, background, and expertise in the same or similar specialties that evaluate and/or treat the medical condition and disputed items/services. He/she is familiar with governing laws and regulations, including the strength of evidence hierarchy that applies to Independent Medical Review determinations.

### CLINICAL CASE SUMMARY

The expert reviewer developed the following clinical case summary based on a review of the case file, including all medical records:

As per medical records reviewed, the claimant is a 60 year old man with a date of injury of 10/1/2011, with resultant development of hand, wrist, elbow, and neck pains allegedly related to performing typing and office work. He is noted to have chronic pain with right cervical radiculopathy, bilateral CTS, and myofascial pain. Clinic notes in 2012 report that EMG showed radiculopathy at C5, C6, and C7, and mild bilateral carpal tunnel syndrome (CTS) (sensory only). [REDACTED] indicated pain in the upper extremities with paresthesias. The examination described paraspinal tenderness, pain with active range of motion (AROM), positive Spurling on the right, Tinel's and Phalen's at the wrist, decreased grip strength with the rest of strength at 5/5, and mild right deltoid weakness. Deep tendon reflexes (DTR) were decreased on the right. In follow up 2/6/2013, reported were ongoing radicular pains. The examination described right hand muscle weakness and deltoid weakness with normal DTRs. Requested was a cervical epidural steroid injection (ESI). In follow up 6/6/2013, reported is the chronic neck and right upper quadrant pains, bilateral hand pains, numbness, and tingling. There was no response to the ESI. At issue is the request for purchase and dispensing of durable medical equipment in the form of H-wave stimulation, which was denied for lack of medical necessity.

### IMR ISSUES, DECISIONS AND RATIONALES

The Final Determination was based on decisions for the disputed items/services set forth below:

**H Wave Unit:** Upheld

**Claims Administrator guideline:** Decision based on MTUS Chronic Pain Treatment Guidelines Page(s): 117.

**MAXIMUS guideline:** Decision based on MTUS Chronic Pain Treatment Guidelines H-Wave Stimulation Page(s): 118.

**Decision rationale:** CA-MTUS (Effective July 18, 2009) page 117 of 127, section on H-Wave states: Not recommended as an isolated intervention, but a one-month home-based trial of H Wave stimulation may be considered as a noninvasive conservative option for diabetic neuropathic pain (Julka, 1998) (Kumar, 1997) (Kumar, 1998), or chronic soft tissue inflammation if used as an adjunct to a program of evidence-based functional restoration, and only following failure of initially recommended conservative care, including recommended physical therapy (i.e., exercise) and medications, plus transcutaneous electrical nerve stimulation (TENS). In a recent retrospective study suggesting effectiveness of the H-wave device, the patient selection criteria included a physician documented diagnosis of chronic soft-tissue injury or neuropathic pain in an upper or lower extremity or the spine that was unresponsive to conventional therapy, including physical therapy, medications, and TENS. (Blum, 2006) (Blum2, 2006) There is no evidence that H-Wave is more effective as an initial treatment when compared to TENS for analgesic effects. A randomized controlled trial comparing analgesic effects of H wave therapy (HWT) and TENS on pain threshold found that there were no differences between the different modalities or HWT frequencies. (McDowell2, 1999) [Note: This may be a different device than the H-Wave approved for use in the US.] Regarding tissue repair, another study suggests that low-frequency HWT may produce direct localized effects on cutaneous blood flow, a finding relevant for clinicians working in the field of tissue repair. (McDowell, 1999) The one-month HWT trial may be appropriate to permit the physician and provider licensed to provide physical therapy to study the effects and benefits, and it should be documented (as an adjunct to ongoing treatment modalities within a functional restoration approach) as to how often the unit was used, as well as outcomes in terms of pain relief and function. Rental would be preferred over purchase during this trial. Trial periods of more than one month should be justified by documentation submitted for review. While H-Wave and other similar type devices can be useful for pain management, they are most successfully used as a tool in combination with functional improvement. H-wave stimulation is a form of electrical stimulation that differs from other forms of electrical stimulation, such as transcutaneous electrical nerve stimulation (TENS), in terms of its waveform. There is no current program of evidence-based functional restoration as recommended by the guidelines documented by the rendering provider, hence the request for H-Wave Unit is not medically necessary