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| <b>Case Number:</b>   | CM13-0022360 |                              |            |
| <b>Date Assigned:</b> | 12/04/2013   | <b>Date of Injury:</b>       | 02/02/2011 |
| <b>Decision Date:</b> | 02/12/2014   | <b>UR Denial Date:</b>       | 09/12/2013 |
| <b>Priority:</b>      | Standard     | <b>Application Received:</b> | 09/25/2013 |

### 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 Physical Medicine and Rehabilitation, has a subspecialty in Pain Medicine, 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.

### CLINICAL CASE SUMMARY

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

The injured worker is a 48-year-old with left upper extremity complex regional pain syndrome, bilateral carpal tunnel syndrome, cervical degenerative disc disease, sleep and mood disorder secondary to chronic pain syndrome. The original date of injury was February 2, 2011. A recent progress note on date of service October 28, 2013 indicates that the patient is awaiting authorization for electrical nerve stimulator. She is stable on her regimen of medication and reports severe pain along the left forearm. The patient has completed a pain psychology evaluation and there are plans for the patient to participate in physical therapy for desensitization and range of motion exercises. Previous physical therapy has been beneficial.

### IMR ISSUES, DECISIONS AND RATIONALES

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

**A TENS (transcutaneous electrical nerve stimulation) unit with supplies:** Overturned

**Claims Administrator guideline:** The Claims Administrator did not cite any medical evidence for its decision.

**MAXIMUS guideline:** Decision based on MTUS Chronic Pain Treatment Guidelines Page(s): 114-116.

**Decision rationale:** The Chronic Pain Medical Treatment Guidelines on Pages 114-116 specify the following regarding TENS (transcutaneous electrical nerve stimulation) for chronic pain: "Not recommended as a primary treatment modality, but a one-month home-based TENS trial

may be considered as a noninvasive conservative option, if used as an adjunct to a program of evidence-based functional restoration, for the conditions described below. While TENS may reflect the long-standing accepted standard of care within many medical communities, the results of studies are inconclusive; the published trials do not provide information on the stimulation parameters which are most likely to provide optimum pain relief, nor do they answer questions about long-term effectiveness. (Carroll-Cochrane, 2001) Several published evidence-based assessments of transcutaneous electrical nerve stimulation (TENS) have found that evidence is lacking concerning effectiveness. One problem with current studies is that many only evaluated single-dose treatment, which may not reflect the use of this modality in a clinical setting. Other problems include statistical methodology, small sample size, influence of placebo effect, and difficulty comparing the different outcomes that were measured. Recommendations by types of pain: A home-based treatment trial of one month may be appropriate for neuropathic pain and CRPS II (conditions that have limited published evidence for the use of TENS as noted below), and for CRPS I (with basically no literature to support use)." There has been a recent meta-analysis published that came to a conclusion that there was a significant decrease in pain when electrical nerve stimulation (ENS) of most types was applied to any anatomic location of chronic musculoskeletal pain (back, knee, hip, neck) for any length of treatment. Of the 38 studies used in the analysis, 35 favored ENS over placebo. All locations of pain were included based on the rationale that "mechanism, rather than anatomic location of pain, is likely to be a critical factor for therapy." The overall design of this study used questionable methodology and the results require further evaluation before application to specific clinical practice. Although electrotherapeutic modalities are frequently used in the management of CLBP, few studies were found to support their use. Most studies on TENS can be considered of relatively poor methodological quality. TENS does not appear to have an impact on perceived disability or long-term pain. High frequency TENS appears to be more effective on pain intensity when compared with low frequency, but this has to be confirmed in future comparative trials. It is also not known if adding TENS to an evidence-based intervention, such as exercise, improves even more outcomes, but studies assessing the interactions between exercise and TENS found no cumulative impact." The injured worker in this case carries a diagnosis of complex regional pain syndrome. Her pai