

<b>Case Number:</b>	CM14-0176041		
<b>Date Assigned:</b>	10/29/2014	<b>Date of Injury:</b>	09/08/2011
<b>Decision Date:</b>	12/24/2014	<b>UR Denial Date:</b>	09/25/2014
<b>Priority:</b>	Standard	<b>Application Received:</b>	10/23/2014

### HOW THE IMR FINAL DETERMINATION WAS MADE

MAXIMUS Federal Services sent the complete case file to an expert reviewer. He/she has no affiliation with the employer, employee, providers or the claims administrator. The expert reviewer is Board Certified in Family 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 expert 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:

The patient is a 59 year-old man who was injured at work on 9/8/2011. The injury was primarily to his back. He is requesting review of denial for the following: IF Unit and Supplies 30-60 Days Rental and Purchase for Lumbar Spine. Medical records corroborate ongoing care for his injuries. The medical records indicate that his chronic diagnoses include the following: Depressive Disorder; Myofascial Sprain of the Lumbar Spine; Spondylolithesis of the Lumbar Spine; Lumbar Radiculitis; and Chronic Pain. He underwent an anterior lumbar decompression and fusion at the L5-S1 level on 10/7/2013. Other treatments have included trigger point injections along with recommendations for 12 sessions of physical therapy. Medications have included Opioids, NSAIDs and Muscle Relaxants.

### IMR ISSUES, DECISIONS AND RATIONALES

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

**IF Unit and Supplies 30-60days Rental and Purchase for Lumbar Spine:** Upheld

**Claims Administrator guideline:** Decision based on MTUS Chronic Pain Treatment Guidelines Interferential Current Stimulation (ICS).

**MAXIMUS guideline:** Decision based on MTUS Chronic Pain Treatment Guidelines Interferential Current Stimulation Page(s): 188-120.

**Decision rationale:** The MTUS/Chronic Pain Medical Treatment Guidelines comment on the use of IF (Interferential Current Stimulation). The guidelines state the following: Interferential Current Stimulation (ICS) Not recommended as an isolated intervention. There is no quality evidence of effectiveness except in conjunction with recommended treatments, including return to work, exercise and medications, and limited evidence of improvement on those recommended treatments alone. The randomized trials that have evaluated the effectiveness of this treatment have included studies for back pain, jaw pain, soft tissue shoulder pain, cervical neck pain and post-operative knee pain. The findings from these trials were either negative or non-interpretible for recommendation due to poor study design and/or methodologic issues. In addition, although proposed for treatment in general for soft tissue injury or for enhancing wound or fracture healing, there is insufficient literature to support Interferential current stimulation for treatment of these conditions. There are no standardized protocols for the use of interferential therapy; and the therapy may vary according to the frequency of stimulation, the pulse duration, treatment time, and electrode-placement technique. Two recent randomized double-blind controlled trials suggested that ICS and horizontal therapy (HT) were effective in alleviating pain and disability in patients with chronic low back pain compared to placebo at 14 weeks, but not at 2 weeks. The placebo effect was remarkable at the beginning of the treatment but it tended to vanish within a couple of weeks. The studies suggested that their main limitation was the heterogeneity of the low back pain subjects, with the interventions performing much better for back pain due to previous multiple vertebral osteoporotic fractures, and further studies are necessary to determine effectiveness in low back pain from other causes. How it works: Paired electrodes of two independent circuits carry differing medium- frequency alternating currents so that current flowing between each pair intersects at the underlying target. The frequency allows the Interferential wave to meet low impedance when crossing the skin. Treatments involve the use of two pairs of electrodes and most units allow variation in waveform, stimulus frequency and amplitude or intensity, and the currents rise and fall at different frequencies. It is theorized that the low frequency of the interferential current causes inhibition or habituation of the nervous system, which results in muscle relaxation, suppression of pain and acceleration of healing. How it is different than TENS: It has been postulated that Interferential stimulation allows for deeper penetration of tissue, whereas TENS is predominantly a cutaneous or superficial stimulus. Interferential current is proposed to produce less impedance in the tissue and the intensity provided is suggested to be perceived as more comfortable. Because there is minimal skin resistance with the interferential current therapy, a maximum amount of energy goes deeper into the tissue. It also crisscrosses, as opposed to the linear application of the TENS. This crisscrossing is postulated to be more effective because it serves to confuse the nerve endings, preventing the treated area from adjusting to the current. There are no published randomized trials comparing TENS to Interferential current stimulation. While not recommended as an isolated intervention, Patient selection criteria if Interferential stimulation is to be used anyway: Possibly appropriate for the following conditions if it has documented and proven to be effective as directed or applied by the physician or a provider licensed to provide physical medicine: Pain is ineffectively controlled due to diminished effectiveness of medications; or Pain is ineffectively controlled with medications due to side effects; or History of substance abuse; or Significant pain from postoperative conditions limits the ability to perform exercise programs/physical therapy treatment; or Unresponsive to conservative measures (e.g., repositioning, heat/ice, etc). If those criteria are met, then a one-month trial may be appropriate to permit the physician and physical medicine provider to study the effects and benefits. There

should be evidence of increased functional improvement, less reported pain and evidence of medication reduction. A "jacket" should not be certified until after the one-month trial and only with documentation that the individual cannot apply the stimulation pads alone or with the help of another available person. In this case the MTUS guidelines do not support an IF Unit as an isolated intervention. Further, there is no evidence in the medical record that the patient meets the above stated patient selection criteria to allow a one-month trial. Further, this request is for 30-60 days, which exceeds these additional criteria. In summary, the MTUS criteria do not support the use of an IF Unit and Supplies 30-60 Days for Rental and Purchase for the Lumbar Spine. The request for IF Unit and Supplies is not medically necessary.