

<b>Case Number:</b>	CM15-0186806		
<b>Date Assigned:</b>	09/28/2015	<b>Date of Injury:</b>	07/07/2010
<b>Decision Date:</b>	11/06/2015	<b>UR Denial Date:</b>	09/21/2015
<b>Priority:</b>	Standard	<b>Application Received:</b>	09/22/2015

### 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. 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/Service. He/she is familiar with governing laws and regulations, including the strength of evidence hierarchy that applies to Independent Medical Review determinations.

The Expert Reviewer has the following credentials:

State(s) of Licensure: Montana

Certification(s)/Specialty: Preventive Medicine, Occupational Medicine

### 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 24 year old female who sustained an industrial injury on 7-7-10. The diagnosis is noted as ankylosis of joint, muscular wasting-disuse atrophy and complex regional pain syndrome. Previous treatment includes medication, biofeedback, ice, heat, acupuncture, physical therapy, home exercise, ultrasound, steroid injections, electric stimulation, neuro-muscular re-education, surgery and use of a cane and crutches. In a progress report dated 8-28-15, the physician notes she is having continued sensitivity in the left leg. Exam of the left leg reveals allodynia or hypersensitivity and quadriceps atrophy. She is noted to have work restrictions. Recommendations are Fentanyl patch and Norco. It is also noted she has significant quadriceps atrophy and a knee rehabilitation unit was advised to help build this back up. Exam shows the nerve supply to the muscle is intact and physical therapy alone is not sufficient to treat the disuse atrophy. It is noted, as the area is large and includes multiple sites the treatment cannot be delivered with standard electrodes, a conductive garment is required. The requested treatment of 1 knee-hab unit was denied on 9-21-15.

### IMR ISSUES, DECISIONS AND RATIONALES

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

**Knee-hab unit Qty: 1.00:** Upheld

**Claims Administrator guideline:** Decision based on MTUS Chronic Pain Medical Treatment 2009.

**MAXIMUS guideline:** Decision based on MTUS Chronic Pain Medical Treatment 2009, Section(s): Transcutaneous electrotherapy.

**Decision rationale:** The Knee-hab unit is a type of neuromuscular electrical stimulation (NMES devices). The MTUS states that NMES devices are not recommended. NMES is used primarily as part of a rehabilitation program following stroke and there is no evidence to support its use in chronic pain. There are no intervention trials suggesting benefit from NMES for chronic pain. (Moore, 1997) (Gaines, 2004) The scientific evidence related to electromyography (EMG)-triggered electrical stimulation therapy continues to evolve, and this therapy appears to be useful in a supervised physical therapy setting to rehabilitate atrophied upper extremity muscles following stroke and as part of a comprehensive PT program. Neuromuscular Electrical Stimulation Devices (NMES), NMES, through multiple channels, attempts to stimulate motor nerves and alternately causes contraction and relaxation of muscles, unlike a TENS device which is intended to alter the perception of pain. NMES devices are used to prevent or retard disuse atrophy, relax muscle spasm, increase blood circulation, maintain or increase range-of-motion, and re-educate muscles. Functional neuromuscular stimulation (also called electrical neuromuscular stimulation and EMG-triggered neuromuscular stimulation) attempts to replace stimuli from destroyed nerve pathways with computer-controlled sequential electrical stimulation of muscles to enable spinal cord-injured or stroke patients to function independently, or at least maintain healthy muscle tone and strength. Also used to stimulate quadriceps muscles following major knee surgeries to maintain and enhance strength during rehabilitation. (BlueCross BlueShield, 2005) (Aetna, 2005) In this case there is significant quadriceps atrophy following left knee surgery. There is a diagnosis of CRPS which, secondary to hypersensitivity and allodynia, might make the treatment unbearable. There is also a diagnosis of joint ankylosis which is not an indication for NMES treatment since there would be no associated joint movement. It is not clear whether the knee joint is actually ankylosed. The utilization review did suggest a short trial with PT supervision to determine if the treatment would be tolerated and effective. The request for Knee-hab unit Qty: 1.00 is not consistent with the MTUS guidelines and is not medically necessary.