



Medical Review Institute of America, Inc.  
America's External Review Network

DATE OF REVIEW: January 22, 2010

IRO Case #:

**Description of the services in dispute:**

1. Physical Therapy/Chiropractic including traction (#97012), electrical stimulation (#G0283), manual stimulation (#97032), ultrasound (#97035), manual therapy (#97140), exercise (#97110), neuromuscular re-education (#97112), gait training (#97116), and kinetic activities (#97530).

**A description of the qualifications for each physician or other health care provider who reviewed the decision**

The clinician who provided this review is a licensed chiropractor. This reviewer is a member of the American Chiropractic Association. This reviewer has been in active practice since 1985.

**Review Outcome**

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

Upheld

Based on review of submitted documentation and current evidenced based literature the current request for 12 sessions of physical therapy including traction (#97012), electrical stimulation (#G0283), manual stimulation (#97032), ultrasound (#97035), manual therapy (#97140), exercise (#97110), neuromuscular re-education (#97112), gait training (#97116), and kinetic activities (#97530) is not medically necessary.

**Information provided to the IRO for review**

Records From the State:

Letter 12/30/09 (1 page)

Confirmation of Receipt of A Request for IRO 12/30/09 (7 pages)

Reconsideration/Appeal Adverse Determination 12/30/09 (2 pages)

Utilization Review Determination 12/12/09 (2 pages)

Records

Notice to Utilization Review Agent of IRO 12/31/09 (1 page)

Pre-authorization Request 12/8/09 (1 page)

Initial Evaluation Doctors of Chiropractic 12/7/09 (4 pages)  
Utilization Review– Provider Request Form 6/23/09 (1 page)  
Physical therapy Prescription Spine & Rehab Specialists 6/9/09 (1 page)  
Initial Evaluation Spine & Rehab Specialists 6/22/09 (2 pages)  
Preauthorization Request Health Network 4/20/09 (1 page)  
Office Notes Orthopaedic Surgery Group 10/20/08–1/28/09 (17 pages)  
MRI Lumbar Spine, Orthopaedic Surgery Group 7/22/08 (1 page)

#### Records from Law Office

Office Notes Orthopaedic Surgery Group 3/4/09–10/21/09 (30 pages)  
Anesthesia Record Specialty Hospital 10/13/09 (1 page)  
Operative Report Specialty Hospital 10/13/09 (4 pages)  
History and Physical Examination Specialty Hospital 10/12/09 (3 pages)  
Emergency Physician Records Specialty Hospital 8/28/09 (4 pages)  
Emergency Physician Records Specialty Hospital 9/1/09 (4 pages)  
Initial Evaluation Spine & Rehab Specialists 6/22/09 (2 pages)  
Emergency Physician Records Specialty Hospital 6/28/09 (4 pages)  
MRI Lumbar Spine Hospital 5/29/09 (2 pages)  
Report of Medical Evaluation (3 pages)  
Doctor Evaluation DO 4/28/09 (8 pages)  
Emergency Physician Records Specialty Hospital 3/7/09 (2 pages)  
Letter from MD 2/19/09 (9 pages)  
Procedure Note form Specialty Hospital 1/13/09 (2 pages)  
ODG Guidelines (7 pages)

#### **Patient clinical history [summary]**

The claimant is a male with date of injury of xx/xx/xx. The mechanism of injury was a fall from 25 feet resulting in injuries to low back and left lower extremity. He has undergone extensive treatment including medication, physical therapy, injections, and CPMP. The initial examination dated 05/08/07 (Saheba, MD) diagnosed lumbar fracture. The MRI dated 08/27/07 confirmed L1 compression fracture. On 02/19/09, the claimant was granted 20% whole person impairment by MD. He was granted 0% whole person impairment on 04/28/09 by, DO. The current request is for 12 sessions of physical therapy including traction (#97012), electrical stimulation (#G0283), manual stimulation (#97032), ultrasound (#97035), manual therapy (#97140), exercise (#97110), neuromuscular re-education (#97112), gait training (#97116), and kinetic activities (#97530).

#### **Analysis and explanation of the decision include clinical basis, findings and conclusions used to support the decision.**

Based on review of submitted documentation and current evidenced based literature the current request for 12 sessions of physical therapy including traction (#97012), electrical stimulation (#G0283), manual stimulation (#97032), ultrasound (#97035), manual therapy (#97140), exercise (#97110), neuromuscular re-education (#97112), gait training (#97116), and kinetic activities (#97530) is not medically necessary.

The claimant has already undergone extensive treatment including medication, physical therapy, injections, and CPMP. There has been minimal measurable response from prior treatment. There is no documented rationale why additional physical therapy would be of any clinical merit at this point. The request exceeds ODG recommendation for a trial of 6 sessions with additional physical therapy predicated on documentation of functional gains from initial trial. The request, also, exceeds ODGs (Pain Chapter) for total visits of physical therapy, up to 10 sessions over 8 weeks. Per ODGs "Myalgia and myositis, unspecified (ICD9 729.1): 9–10 visits over 8 weeks". The request includes several passive modalities (traction, EMS, manual EMS, ultrasound, and MFR). Passive modalities are generally not recommended based on insufficient high quality studies documenting efficacy. Please refer to appropriate citations for each passive modality recommendation. The request includes 9 units of procedures/modalities per session. ODG Preface generally recommends no more than 3–4 units of procedures/modalities per session. Per ODGs " Generally there should be no more than 4 modalities/procedural units in total per visit, allowing the PT visit to focus on those treatments where there is evidence of functional improvement, and limiting the total length of each PT visit to 45–60 minutes unless additional circumstances exist requiring extended length of treatment".

**A description and the source of the screening criteria or other clinical basis used to make the decision:**

1) ODGs for Pain Regarding Physical Therapy:

Recommended as indicated below. Passive therapy (those treatment modalities that do not require energy expenditure on the part of the patient) can provide short term relief during the early phases of acute pain treatment or acute exacerbations of chronic pain and are directed at controlling symptoms such as pain, inflammation and swelling and to improve the rate of healing soft tissue injuries. They can be used sparingly with active therapies to help control swelling, pain and inflammation during the rehabilitation process. Active therapy is based on the philosophy that therapeutic exercise and/or activity are beneficial for restoring flexibility, strength, endurance, function, range of motion, and can alleviate discomfort. Active therapy requires an internal effort by the individual to complete a specific exercise or task. This form of therapy may require supervision from a therapist or medical provider such as verbal, visual and/or tactile instruction(s). Patients are instructed and expected to continue active therapies at home as an extension of the treatment process in order to maintain improvement levels. Home exercise can include exercise with or without mechanical assistance or resistance and functional activities with assistive devices. (Colorado, 2002) (Airaksinen, 2006) Patient-specific hand therapy is very important in reducing swelling, decreasing pain, and improving range of motion in CRPS. (Li, 2005) The use of active treatment modalities (e.g., exercise, education, activity modification) instead of passive treatments is associated with substantially better clinical outcomes. In a large case series of patients with low back pain treated by physical therapists, those adhering to guidelines for active rather than passive treatments incurred fewer treatment visits, cost less, and had less pain and less disability. The overall success rates were 64.7% among those adhering to the active treatment recommendations versus 36.5% for passive treatment. (Fritz, 2007)

## ODG Physical Therapy Guidelines –

Allow for fading of treatment frequency (from up to 3 visits per week to 1 or less), plus active self-directed home PT. Also see other general guidelines that apply to all conditions under Physical Therapy in the ODG Preface.

Myalgia and myositis, unspecified (ICD9 729.1):

9–10 visits over 8 weeks

Neuralgia, neuritis, and radiculitis, unspecified (ICD9 729.2)

8–10 visits over 4 weeks

Reflex sympathetic dystrophy (CRPS) (ICD9 337.2):

26 visits over 16 weeks

Arthritis (ICD9 715):

Medical treatment: 9 visits over 8 weeks

Post-injection treatment: 1–2 visits over 1 week

Post-surgical treatment (see body-part chapters): 18 visits over 12 weeks

## 2) ODGs for Low Back Regarding Traction:

Not recommended using powered traction devices, but home-based patient controlled gravity traction may be a noninvasive conservative option, if used as an adjunct to a program of evidence-based conservative care to achieve functional restoration. As a sole treatment, traction has not been proved effective for lasting relief in the treatment of low back pain. Traction is the use of force that separates the joint surfaces and elongates the surrounding soft tissues. (Beurskens, 1997) (Tulder, 2002) (van der Heijden, 1995) (van Tulder, 2000) (Borman, 2003) (Assendelft-Cochrane, 2004) (Harte, 2003) (Clarke, 2006) (Clarke, 2007) (Chou, 2007) The evidence suggests that any form of traction may not be effective. Neither continuous nor intermittent traction by itself was more effective in improving pain, disability or work absence than placebo, sham or other treatments for patients with a mixed duration of LBP, with or without sciatica. There was moderate evidence that autotraction (patient controlled) was more effective than mechanical traction (motorized pulley) for global improvement in this population. (Clarke-Cochrane, 2005) Traction has not been shown to improve symptoms for patients with or without sciatica. (Kinkade, 2007) The evidence is moderate for home based patient controlled traction compared to placebo. (Clarke, 2007) A clinical prediction rule with four variables (non-involvement of manual work, low level fear-avoidance beliefs, no neurological deficit and age above 30 years) was identified. The presence of all four variables (positive likelihood ratio = 9.36) increased the probability of response rate with mechanical lumbar traction from 19.4 to 69.2%. (Cai, 2009) See also Powered traction devices; Vertebral axial decompression (VAX-D); IDD therapy (intervertebral disc decompression); & Orthrotrac vest.

## 3) ODGs for Low Back Regarding NMES:

Not recommended except for specific criteria below. Neuromuscular electrical stimulators (NMES) are small electronic devices that are affixed externally by the patient to the skin by the way of electrodes. There are two types of NMES. One type of device stimulates muscle to maintain muscle tone during temporary extremity immobilization. The other type of NMES is used to enhance the

ability to walk in spinal cord injured (SCI) patients by emitting electrical impulses to stimulate paralyzed or weak muscles in a specific order. NMES differ from transcutaneous electrical nerve stimulation (TENS) units, which are used for pain management therapy (See TENS). See also Electrical stimulators (E-stim).

Criteria for the use of neuromuscular electrical stimulators:

Spinal cord injured (SCI) patients that meet ALL of the following criteria:

- o Intact lower motor units (L1 and below) (both muscle and peripheral nerve); AND
- o Muscle and joint stability for weight bearing at upper and lower extremities that can demonstrate balance and control to maintain an upright support posture independently; AND
- o Able to demonstrate brisk muscle contraction to NMES and have sensory perception of electrical stimulation sufficient for muscle contraction; AND
- o Possess high motivation, commitment and cognitive ability to use such devices for walking; AND
- o Have demonstrated a willingness to use the device long-term; AND
- o Ability to transfer independently and can demonstrate independent standing tolerance for at least three minutes; AND
- o Ability to demonstrate hand and finger function to manipulate controls; AND
- o Having at least six-month post recovery spinal cord injury and restorative surgery; AND
- o No hip and knee degenerative disease and no history of long bone fracture secondary to osteoporosis.

4) ODGs for Low Back Regarding Ultrasound:

Not recommended based on the medical evidence, which shows that there is no proven efficacy in the treatment of acute low back symptoms. However, therapeutic ultrasound has few adverse effects, is not invasive, and is moderately costly, so where deep heating is desirable, providers and payors might agree in advance on a limited trial of ultrasound for treatment of acute LBP, but only if used as an adjunct to a program of evidence-based conservative care including exercise (but it is still not recommended by ODG). Therapeutic ultrasound is one of the most widely and frequently used electrophysical agents. Despite over 60 years of clinical use, the effectiveness of ultrasound for treating people with pain, musculoskeletal injuries, and soft tissue lesions remains questionable. There is little evidence that active therapeutic ultrasound is more effective than placebo ultrasound for treating people with pain or a range of musculoskeletal injuries or for promoting soft tissue healing. (van Tulder, 1997) (Philadelphia Panel, 2001) (Robertson, 2001) In a small study, extension and lateral flexion range of motion significantly increased in the ultrasound (US) group, compared to sham-US. (Ansari, 2006) See also Heat therapy.

ODG Preface Regarding Physical Therapy:

Physical Therapy Guidelines, showing recommended frequency and duration of PT visits are next. Only appropriate conditions have physical therapy guidelines. These guidelines provide evidence-based benchmarks for the number of visits with a physical or occupational therapist and the period of time during which these visits take place. (Note: These guidelines do not include work hardening programs.) The physical therapy guidelines do not describe the type of therapy required,

and the number of visits does not include physical therapy that the patient should perform in their own home or work site, after proper training from a clinician. Unless noted otherwise, the visits indicated are for outpatient physical therapy, and the physical therapist's judgment is always a consideration in the determination of the appropriate frequency and duration of treatment. Support for the physical therapy guidelines is relevant medical literature and actual experience data, combined with consensus review by experts. The most important data sources are the high quality medical studies that are referenced in the treatment guidelines, ODG Treatment in Workers' Comp, within the Procedure Summaries of each relevant chapter, summarized under the entry for "Physical Therapy." For clinical trials that show effectiveness for these therapies, the number of visits required to achieve this are isolated from each study and combined with the same information from other successful studies to arrive at the benchmark number of visits in ODG.

There are a number of overall physical therapy philosophies that may not be specifically mentioned within each guideline: (1) As time goes by, one should see an increase in the active regimen of care, a decrease in the passive regimen of care, and a fading of treatment frequency; (2) The exclusive use of "passive care" (e.g., palliative modalities) is not recommended; (3) Home programs should be initiated with the first therapy session and must include ongoing assessments of compliance as well as upgrades to the program; (4) Use of self-directed home therapy will facilitate the fading of treatment frequency, from several visits per week at the initiation of therapy to much less towards the end; (5) Patients should be formally assessed after a "six-visit clinical trial" to see if the patient is moving in a positive direction, no direction, or a negative direction (prior to continuing with the physical therapy); & (6) When treatment duration and/or number of visits exceeds the guideline, exceptional factors should be noted.

Generally there should be no more than 4 modalities/procedural units in total per visit, allowing the PT visit to focus on those treatments where there is evidence of functional improvement, and limiting the total length of each PT visit to 45–60 minutes unless additional circumstances exist requiring extended length of treatment. Treatment times per session may vary based upon the patient's medical presentation but typically may be 45–60 minutes in order to provide full, optimal care to the patient. Additional time may be required for the more complex and slow to respond patients. While an average of 3 or 4 modalities/ procedural units per visit reflect the typical number of units, this is not intended to limit or cap the number of units that are medically necessary for a particular patient, for example, in unusual cases where co-morbidities involve completely separate body domains, but documentation should support an average greater than 4 units per visit. These additional units should be reviewed for medical necessity, and authorized if determined to be medically appropriate for the individual injured worker.

As described above, for more detail users should refer to ODG Treatment in Workers' Comp, within the Procedure Summaries of each relevant chapter, for recommendations about specific treatments and modalities, along with supporting links to the highest quality relevant medical studies, which have been summarized, rated, and highlighted. In these Procedure Summaries ODG covers many different types of treatments that can be supported by the medical evidence, and it also identifies

the maximum number of visits that can be justified by the evidence; however, this does not mean that a provider should do every possible treatment that may be recommended (actually, this would be highly unlikely since different specialties would be required), or always deliver the maximum number of visits, without taking into account what was needed to cure the patient in a particular case. Furthermore, duplication of services is not considered medically necessary. While the recommendations for number of visits are guidelines and are not meant to be absolute caps for every case, they are also not meant to be a minimum requirement on each case (i.e., they are not an "entitlement"). Any provider doing this is not using the guidelines correctly, and provider profiling would flag these providers as outliers. This applies to all types of treatment, and not just physical therapy. Furthermore, flexibility is especially important in the time frame recommendations. Generally, the number of weeks recommended should fall within a relatively cohesive time period, between date of first and last visit, but this time period should not restrict additional recommended treatments that come later, for example due to scheduling issues or necessary follow-up compliance with a home-based program. When there are co-morbidities, the same principles should apply as in the ODG guidelines for return-to-work. See Additional note on co-morbidities at the end of the description of the Return-To-Work "Best Practice" Guidelines. In estimating the maximum number of treatment visits for workers with multiple diagnoses, users should use the number from the diagnosis with the longest number of visits. This assumes that whatever separate therapy, if any, that the lesser diagnosis requires, it can be done during the same visits addressing the more serious problem. If there are reasons why these therapies cannot be concurrent, documentation should support medical necessity. For example, in unusual cases where co-morbidities involve completely separate body domains, requiring separate treatments that would be difficult to combine, either additional visits or additional time for a visit may be justified. [For the purpose of this discussion, we would assume there could be only three separate body domains: (1) spine and pelvis; (2) upper extremity and hands; & (3) lower extremity and feet.] Of course, each billed treatment should require one-on-one patient contact with the licensed therapist and not include modalities/exercises that the patient has learned to do on their own without supervision, and there should also be some economies of scale such that the involvement of two body domains should not require either a doubling of the number of visits or a doubling of the modalities (or time) per visit. Also see Multiple incidences of disability duration in the same section for recommendations regarding number of treatment visits, for example, physical therapy, in these situations. And physical therapy visits post surgery should be considered separately from visits used up in an attempt at conservative treatment that might have avoided surgery.

Physical medicine treatment (including PT, OT and chiropractic care) should be an option when there is evidence of a musculoskeletal or neurologic condition that is associated with functional limitations; the functional limitations are likely to respond to skilled physical medicine treatment (e.g., fusion of an ankle would result in loss of ROM but this loss would not respond to PT, though there may be PT needs for gait training, etc.); care is active and includes a home exercise program; & the patient is compliant with care and makes significant functional gains with treatment.

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