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Notice of Independent Review Decision

DATE OF REVIEW: 12/15/2008

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE

Exercise Bike with Left Peddle Extension

A DESCRIPTION OF THE QUALIFICATIONS FOR EACH PHYSICIAN OR OTHER HEALTH CARE PROVIDER WHO REVIEWED THE DECISION

Certified by the American Board of Orthopedic Surgery

REVIEW OUTCOME

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

☒ Upheld (Agree)

☐ Overturned (Disagree)

☐ Partially Overturned (Agree in part/Disagree in part)

Injury date	Claim #	Review Type	ICD-9 DSMV	HCPCS/ NDC	Upheld/ Overturned
		Prospective	824.8		Upheld
		Prospective	823.30	A9300	Upheld
		Prospective	733.82		Upheld

INFORMATION PROVIDED TO THE IRO FOR REVIEW

Correspondence throughout appeal process, including first and second level decision letters, reviews, letters and requests for reconsideration, and request for review by an independent review organization.
Therapy evaluation/treatment dated 10/23/08, 9/11/08
Physician notes dated 8/6/08, 6/18/08, 5/7/08, 4/17/08
Official Disability Guidelines cited – (Chapter Low Back), Exercise

PATIENT CLINICAL HISTORY:

According to a physician note of 8/6/08, this xx-year-old claimant is now 8 ½ months status post treatment of left tibial nonunion with autograft and adjustment of external fixator. The claimant was injured on xx/xx/xx. Treatment has included medications, therapy, and bone stimulator.

ANALYSIS AND EXPLANATION OF THE DECISION INCLUDING CLINICAL BASIS, FINDINGS AND CONCLUSIONS USED TO SUPPORT THE DECISION

The Reviewer noted that there is a prescription form indicating that the purpose of this device is for range of motion and gentle conditioning. Physical therapy sessions are noted to have been completed. The Reviewer commented that there is no discussion from the requesting provider why this personal comfort device is needed to address the healed tibia fracture. There is a note indicating weight bearing as tolerated and this should address the ankle range of motion issue. There is no clinical data presented as to why this device would be considered reasonably required to address the sequalae of the event.

As per the Division mandated Official Disability Guidelines, exercise in general is "recommended" (please see below). However, this addresses the sequalae of knee injuries and overall improvements. There is no discussion relative to a tibial fracture. I then looked at the treatment planning section of the Medical Disability Advisor. (Also below) they argue that once the fracture has healed, the activity levels are as tolerated. Therefore, other activities can be used to support the tibia fracture.

ODG – Fracture of Tibia and Fibula, Exercise
Recommended. Therapeutic exercises are beneficial for knee osteoarthritis. (Philadelphia, 2001) (Cheing, 2004) (de Jager, 2004) (Roddy, 2005) (Karatosun, 2005) (Bennell, 2005) Both aerobic walking and home-based quadriceps strengthening exercise reduce knee pain and disability, but no difference between them was found. (Roddy2, 2005) Knee injuries can be reduced by 50 percent after a rigorous warm-up routine. In a study of 1,837 student athletes, acute knee injuries occurred in only 2 percent of athletes in the warm-up group and 4.3 percent in the control group. This warm-up routine included a series of exercises specifically designed to improve muscle awareness, balance, and strength. Typical stretching protocols did not decrease injury. (Olsen, 2005) This review demonstrated an absence of evidence to support one form of exercise intervention against another in the management of isolated ACL injuries. (Trees, 2005) A randomized controlled trial of the effectiveness of water-based exercise concluded that group-based exercise in water over 1 year can produce significant reduction in pain and improvement in physical function in adults with lower limb arthritis, and may be a useful adjunct in the management of hip and/or knee arthritis. (Cochrane, 2005) For exercises

and other structured activities pursued with a goal of health improvement, the OASIS group states with a high level of scientific evidence that they have a favorable effect on pain and function in the sedentary knee osteoarthritis (OA) patient, they recommend the practice of exercises and other structured activities for the sedentary patient with knee OA (grade A). Static exercises are not favored over dynamic exercises; availability, preference and tolerance being the criteria for the choice of an exercise (grade A). As results deteriorate when exercises are stopped, they should be performed at a frequency of between one and three times per week (grade B). Professional assistance can be useful in improving initial compliance and perseverance (grade B). There is no scientific argument to support halting exercise in case of an OA flare-up (grade C). (Vignon, 2006) Presurgical exercise improves recovery after hip or knee replacement. Men and women with end-stage osteoarthritis can safely participate in and benefit from a program of cardiovascular fitness, strength training, and flexibility exercise prior to total hip or total knee arthroplasty, according to results of a prospective, randomized trial. (Rooks, 2006) This study supports recommending regular moderate physical activity without undue fear that such activity may increase the risk for knee osteoarthritis (OA). Among middle-aged and elderly persons without knee OA in the Framingham Offspring Study cohort, recreational exercise neither protected against nor increased risk for knee OA. Recreational walking, jogging, frequency of working up a sweat, or high activity levels relative to peers were not associated with decreased or increased risk for OA or with joint space loss. Overweight persons in this cohort had no increases in risk for OA with different types of recreational activity. (Felson, 2007) Current evidence supports the effectiveness and safety of moderate- to high-intensity aerobic and strengthening exercises for osteoarthritis and stable rheumatoid arthritis; participation in recreational activities does not replace the need for therapeutic exercises. (Westby, 2006) Exercise therapy is effective in improving symptoms of knee osteoarthritis, but its effect on structural change remains unclear. This study found that greater muscle strength and endurance fitness, especially in women, may be protective against cartilage loss, but it also may result in a maladaptive enlargement of subchondral bone in both sexes, suggesting that physical activity may have both good and bad effects on the knee. (Foley, 2007) Increased vigorous physical activity is associated with lower mortality (from all causes, not just knee problems). A total of 559,898 American men and women, aged 50 to 71 years, were followed for 10 years. The researchers compared those who rarely engaged in vigorous physical activity (defined as 20 minutes/session, accepted as minimum duration for health benefits) with those who engaged in 20 minutes of vigorous physical activity 1 to 3 times per month, 1 to 2 times per week, 3 to 4 times per week, and 5 or more times per week. For women, the relative risks of mortality (95% confidence interval) were 0.76, 0.72, 0.65, and 0.63, respectively; for men, relative risks were 0.76, 0.68, 0.61, and 0.57. (Leitzmann, 2007) Neuromuscular training may reduce risk factors that contribute to ACL injury. (Myer, 2007) Therapeutic exercise is likely to help with the signs and symptoms of OA. (Stitik, 2007) The combined use of hyaluronate injections with a home exercise program should be considered for management of moderate-to-severe pain in patients with knee osteoarthritis. (Stitik, 2007) Long-term training aimed at

increasing muscle fiber size (i.e., strength training) should be preferred over aerobic training to countermeasure the loss of muscle mass and contractile contractile rate of force development (RFD) with increasing age. (Aagaard, 2007) Supervised therapeutic exercise improves outcomes in patients who have osteoarthritis or claudication of the knee. Compared with home exercise, supervised therapeutic exercise has been shown to improve walking speed and distance. (Rand, 2007) An 8-week exercise program was associated with relief of symptoms and reduced fatigue in patients with arthritis, according to a randomized controlled trial reported in the January issue of Arthritis Care & Research. A previous small study suggested that both aquatic-based and land-based exercise could improve functional fitness, activities of daily living, and upper extremity strength vs. control therapy. The current study finds that the PACE program can relieve pain and reduce fatigue among patients with arthritis at 2 and 6 months. The PACE program also improved self-efficacy of arthritis management, but it did not improve levels of physical activity. (Callahan, 2008) A literature review of strength training for treatment of osteoarthritis (OA) of the knee found that the development of knee OA depends on a variety of factors, with quadriceps weakness being one of the main factors that was modified by resistance training. More than half of the studies found an improvement in self-reported pain and 79 percent found an improvement in self-reported disability/mobility following resistance training, with progressive resistance training associated with an overall increase in physical activity levels. Resistance training included resistance machines, free weights, isometric exercise or other devices such as elastic bands. (Lange, 2008)

MDA

The rehabilitation will be determined by the severity, location and type of fracture, how the fracture is stabilized (operative, nonoperative) and the length of immobilization. The goal of rehabilitation is to decrease pain and restore full function to the lower limb. Modalities such as heat and cold can be used to control pain and edema (Braddom). Rehabilitation emphasizes restoring full range of motion, strength, proprioception and endurance of all adjacent joints while maintaining independence in all activities of daily living, if not contraindicated by the fracture stability. Gait training using appropriate assistive devices is indicated to promote independent ambulation. The individual may progress from walker to crutches to cane based on ability and weight bearing status. If casted, range of motion exercises of the adjacent joints may be beneficial unless contraindicated based on fracture stability. After cast removal, range of motion, proprioceptive and strengthening exercises of the involved limb should be started (Bucholz). Exercise intensity and difficulty should be progressed until full function is achieved.

If operatively managed, the protocol of rehabilitation will be guided by the treating physician. Bone healing may occur within 6 to 16 weeks; however, the bone strength and the ability of the bone to sustain a heavy load may take up to a year (Chapman). Once

healing has occurred, the individual may resume activities of daily living. It is important to instruct the individual not to overload the fracture site until the bone has regained its full strength. The resumption of heavy work and sports should be guided by the treating physician.

A DESCRIPTION AND THE SOURCE OF THE SCREENING CRITERIA OR OTHER CLINICAL BASIS USED TO MAKE THE DECISION:

- ☐ **ACOEM- AMERICAN COLLEGE OF OCCUPATIONAL & ENVIRONMENTAL MEDICINE UM KNOWLEDGEBASE**
- ☐ **AHCPR- AGENCY FOR HEALTHCARE RESEARCH & QUALITY GUIDELINES**
- ☐ **DWC- DIVISION OF WORKERS COMPENSATION POLICIES OR GUIDELINES**
- ☐ **EUROPEAN GUIDELINES FOR MANAGEMENT OF CHRONIC LOW BACK PAIN**
- ☐ **INTERQUAL CRITERIA**
- ☐ **MEDICAL JUDGEMENT, CLINICAL EXPERIENCE AND EXPERTISE IN ACCORDANCE WITH ACCEPTED MEDICAL STANDARDS**
- ☐ **MERCY CENTER CONSENSUS CONFERENCE GUIDELINES**
- ☐ **MILLIMAN CARE GUIDELINES**
- ☒ **ODG- OFFICIAL DISABILITY GUIDELINES & TREATMENT GUIDELINES**
- ☐ **PRESSLEY REED, THE MEDICAL DISABILITY ADVISOR**
- ☐ **TEXAS GUIDELINES FOR CHIROPRACTIC QUALITY ASSURANCE & PRACTICE PARAMETERS**
- ☐ **TEXAS TACADA GUIDELINES**
- ☐ **TMF SCREENING CRITERIA MANUAL**
- ☐ **PEER REVIEWED NATIONALLY ACCEPTED MEDICAL LITERATURE (PROVIDE A DESCRIPTION)**
- ☐ **OTHER EVIDENCE BASED, SCIENTIFICALLY VALID, OUTCOME FOCUSED GUIDELINES (PROVIDE A DESCRIPTION)**