

Notice of Independent Review Decision

DATE OF REVIEW:

09/17/2009

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE

Total Knee Replacement

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

Board Certified Orthopaedic Surgeon

REVIEW OUTCOME

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

Provide a description of the review outcome that clearly states whether or not medical necessity exists for each of the health care services in dispute.

The requested procedure (right total knee replacement) is not medically necessary.

PATIENT CLINICAL HISTORY [SUMMARY]:

The injured individual is a xx year old male who was reported to have sustained a work-related injury to his right knee. There is no information regarding the initial mechanism of injury, physical findings, or initial medical treatment. The medical documentation reviewed listed several different mechanisms of injury to include fixing a machine when the machine turned, twisting his leg at the knee and falling onto a six inch pipe on his hip. Another was injury occurred while loading equipment onto a trailer. The injured individual was initially seen at by a physician assistant under the supervision of M.D. on 03/19/2007. Diagnoses included low back strain, right knee strain, and right ankle sprain. He began treatment and was followed by various Physician Assistants (PAs) at that facility. MRI was eventually performed and felt to show a medial meniscus tear. The injured individual is then referred to M.D. There is an operative note from M.D. dated 06/18/2007. The note documented an arthroscopic examination with a partial synovectomy. He was started on a physical therapy program postoperatively. The injured individual continued to complain of symptoms. M.D. placed him at Maximum Medical Improvement (MMI) on 10/15/2007 with a 0% whole person impairment rating. Dr. agrees and signs off on the certification of MMI. M.D. evaluated the injured individual on 06/20/2008 and reported a new injury to the lumbar spine. He noted a past medical history of two prior back surgeries. Dr. 's diagnosis was a disc herniation at L5-S1 and recommended a lumbar epidural steroid injection. He begins treatment at some point with D.C. who appears to be acting as his treating provider. He undergoes extensive chiropractic directed treatment. Dr. eventually refers the injured individual to M.D. A second procedure was performed by M.D. on 08/25/2008. It is reported that the injured individual underwent a lateral meniscus repair, synovectomy, partial medial meniscectomy, anterior cruciate repair, and finally a platelet graft. Multiple MRIs performed did not reveal an anterior cruciate ligament (ACL) tear therefore it is unclear how this was done. In addition, there were multiple procedures performed for at best questionable pathology. Dr. 's operative note is computer generated and not clear. Plain x-rays consistently documented mild degenerative changes at most and there is no evidence of weightbearing AP views or any other special technique to assess joint space. placed the injured individual at MMI a second time on 02/19/2009 with a 4 % whole person impairment rating. Treatment still continued despite the certification of MMI. The injured

individual then began seeing M.D. on 05/13/2009 who opined that the injured individual had a degenerative knee. He has recommended total knee replacement. Attorney involvement is noted on 06/11/2009 when a request was submitted for his medical records for a date of injury of xx/xx/xx. The requested procedure was noncertified on initial review on 08/06/2009 for lack of meeting ODG criteria. An Orthopaedic Surgeon upheld the denial on reconsideration/appeal noting there was no additional information submitted since the initial review and the request did not meet ODG criteria. Dr. noted that he was going to have the injured individual obtain standing films in his office visit of 08/26/2009 after the request had been noncertified twice. He reported that the injured individual had previous injection and viscosupplementation in the past, but there is no objective data to support that contention.

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

The injured individual is a xx year old male with an unclear diagnosis. He was reported to have had a work-related knee injury, but the details are not specified and various dates of injury are in the records. The extent of the injured individual's arthritis is not objectively documented.

The Official Disability Guidelines (ODG) criteria for the requested procedure:

ODG Indications for Surgery -- Knee arthroplasty:

Criteria for knee joint replacement (If only 1 compartment is affected, a unicompartmental or partial replacement is indicated. If 2 of the 3 compartments are affected, a total joint replacement is indicated.):

1. Conservative Care: Medications. AND (Visco supplementation injections OR Steroid injection). PLUS
2. Subjective Clinical Findings: Limited range of motion. AND Nighttime joint pain. AND No pain relief with conservative care. PLUS
3. Objective Clinical Findings: Over 50 years of age AND Body Mass Index of less than 35. PLUS
4. Imaging Clinical Findings: Osteoarthritis on: Standing x-ray. OR Arthroscopy.
(Washington, 2003) (Sheng, 2004) (Saleh, 2002) (Callahan, 1995)

The criteria as noted above have not been satisfied. There are no specific details objectively documented regarding conservative care or standing films. Body Mass Index was listed as 36 or greater when seen at . The arthroscopies did not detail any severe arthrosis.

Knee joint replacement: Recommended as indicated below.

Total hip and total knee arthroplasties are well accepted as reliable and suitable surgical procedures to return patients to function. The most common diagnosis is osteoarthritis. Overall, total knee arthroplasties were found to be quite effective in terms of improvement in health-related quality-of-life dimensions, with the occasional exception of the social dimension. Age was not found to be an obstacle to effective surgery, and men seemed to benefit more from the intervention than did women. (Ethgen, 2004) Total knee arthroplasty was found to be associated with substantial functional improvement. (Kane, 2005) Navigated knee replacement provides few advantages over conventional surgery on the basis of radiographic end points. (Bathis, 2006) (Bauwens, 2007) The majority of patients who undergo total joint replacement are able to maintain a moderate level of physical activity, and some maintain very high activity levels. (Bauman, 2007) Functional exercises after hospital discharge for total knee arthroplasty result in a small to moderate short-term, but not long-term, benefit. In the short term physical therapy interventions with exercises based on functional activities may be more effective after total knee arthroplasty than traditional exercise programs, which concentrate on isometric muscle exercises and exercises to increase range of motion in the joint. (Lowe, 2007) The safety of simultaneous bilateral total knee replacement remains controversial. Compared with staged bilateral or unilateral total knee replacement, simultaneous bilateral total knee replacement carries a higher risk of serious cardiac complications, pulmonary complications, and

mortality. (Restrepo, 2007) Unicompartmental knee replacement is effective among patients with knee OA restricted to a single compartment. (Zhang, 2008) Accelerated perioperative care and rehabilitation intervention after hip and knee arthroplasty (including intense physical therapy and exercise) reduced mean hospital length of stay (LOS) from 8.8 days before implementation to 4.3 days after implementation. (Larsen, 2008) After total knee arthroplasty (TKA) for osteoarthritis of the knee, obese patients fare nearly as well as their normal-weight peers. A British research team reports that higher BMI (up to 35) should not be a contraindication to TKA, provided that the patient is sufficiently fit to undergo the short-term rigors of surgery. TKA also halts the decline and maintains physical function in even the oldest age groups (> 75 years). (Cushnaghan, 2008) In this RCT, perioperative celecoxib (Celebrex) significantly improved postoperative resting pain scores at 48 and 72 hrs, opioid consumption, and active ROM in the first three days after total knee arthroplasty, without increasing the risks of bleeding. The study group received a single 400 mg dose of celecoxib, one hour before surgery, and 200 mg of celecoxib every 12 hours for five days. (Huang, 2008) Total knee arthroplasty (TKA) not only improves knee mobility in older patients with severe osteoarthritis of the knee, it actually improves the overall level of physical functioning. Levels of physical impairment were assessed with three tools: the Nagi Disability Scale, the Instrumental Activities of Daily Living Scale (IADL) and the Activities of Daily Living (ADL) Scale. Tasks on the Nagi Disability Scale involve the highest level of physical functioning, the IADL an intermediate level, and the ADL Scale involves the most basic levels. Statistically significant average treatment effects for TKA were observed for one or more tasks for each measure of physical functioning. The improvements after TKA were "sizeable" on all three scales, while the no-treatment group showed declining levels of physical functioning. (George, 2008) This study showed that total knee replacement is second the most successful orthopaedic procedure for relieving chronic pain, after total hip. The study compared the gains in quality of life achieved by total hip replacement, total knee replacement, surgery for spinal stenosis, disc excision for lumbar disc herniation, and arthrodesis for chronic low back pain. Hip replacement reduced pain to levels normal for age, reduced physical functioning to within 75% normal levels, and restored quality of life to virtually normal levels. Total knee replacement was the next most successful procedure, and it all but eliminated pain, improved physical functioning to 60% normal, and restored quality of life to within 65% of normal. (Hansson, 2008) In this study, the rate of failure of total knee implants, at least up to 5 years after surgery, and the time to failure, were not influenced by patients' BMI, except for subjects affected by morbid obesity, but this group had a small sample size. Based on this evidence, however, it does not appear justified to give low priority to obese subjects for total knee arthroplasty, which would, as a result of restored ability to move, lead to weight loss. (Bordini, 2009) A 6-week program of progressive strength training targeting the quadriceps femoris muscle group substantially improves strength and function following total knee arthroplasty for treatment of osteoarthritis, compared to patients who received standard of care therapy; however, addition of neuromuscular electrical stimulation (NMES) to the strength training exercise did not improve outcomes. (Petterson, 2009) Knee replacement surgery is expensive but worth the cost, especially if performed by experienced surgeons, according to a recent study. Some \$11 billion is spent on 500,000 total knee replacements each year in the United States, and the number is projected to multiply seven times by 2030 because of the aging, overweight population. Over 90% knee replacements are successful, knee pain goes away and patients become more mobile. In the study, knee replacement surgery and subsequent costs added up to \$57,900 per patient, which was \$20,800 more than was spent on those who did not get the surgery. Those who got artificial knees lived more than a year longer in good health than those who did not, and the researchers calculated the added cost per year of good-quality life at \$18,300. (Losina, 2009) In a 7-year prospective study, patients with severe osteoarthritis who had total knee replacement had significant improvements in health-related quality of life, but health outcomes were negatively influenced by obesity and postdischarge complications, and women typically did not get as much benefit from surgery as do men. Overall, 76.8% were satisfied or very satisfied with their total knee replacement, and 79.5% said they would have the surgery again in similar circumstances. (Núñez, 2009)

The injured individual is a xx year old obese (5'8"- 240 pounds) Hispanic male whose major complaint is burning and pins and needle sensation to his right knee. This complaint is not consistent with the diagnosis or requested surgical procedure. He has undergone extensive evaluation and treatment without any significant improvement in his symptoms. He has been placed at Maximum Medical Improvement (MMI) on at least two occasions. The Department of Workers' Compensation notes that certification of MMI implies that further active treatment is unlikely in all medical probability to result in significant clinical improvement or change in functional status. Imaging studies have clearly documented some evidence of pre-existing or "disease of life" degenerative changes. There is no objective evidence of severe arthritic disease as a result of the occupational injury. Both the Official Disability Guidelines and Medical Disability Advisor recognize the immense therapeutic benefit of return to work. His prognosis is guarded secondary to his age and protracted off work status. Treatment has been excessively passive and chiropractic directed.

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

- **ODG- OFFICIAL DISABILITY GUIDELINES & TREATMENT GUIDELINES**
- **PRESSLEY REED, THE MEDICAL DISABILITY ADVISOR**