

# P&S Network, Inc.

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## Notice of Independent Review Decision

**DATE OF REVIEW:** 09/21/09

**IRO CASE #:**

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

This case was reviewed by a Orthopaedic Surgery, Licensed in Texas and Board Certified. The reviewer has signed a certification statement stating that no known conflicts of interest exist between the reviewer and the injured employee, the injured employee's employer, the injured employee's insurance carrier, the utilization review agent (URA), any of the treating doctors or other health care providers who provided care to the injured employee, or the URA or insurance carrier health care providers who reviewed the case for a decision regarding medical necessity before referral to the IRO. In addition, the reviewer has certified that the review was performed without bias for or against any party to the dispute.

### **DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE**

1 Revision of the Left Total Knee Arthroplasty between 7/20/2009 and 9/18/2009

### **REVIEW OUTCOME**

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

Overturn (Disagree)

### **PATIENT CLINICAL HISTORY (SUMMARY):**

According to the medical records and prior reviews the patient is an employee who sustained an industrial injury to the bilateral knees originating with a twisting injury. He has a history of osteoarthritis and knee injuries. Following 4-5 arthroscopies, he underwent a left unicompartmental knee replacement in 2003.

According to the medical report of xx/xx/xx the patient is using NSAIDs and currently taking Etodolac. He has also had injections of both corticosteroid and hyaluronic acid. He claims to have had 9 arthroscopies on his right knee. He reports increased knee pain and inability to walk more than 3-4 blocks due discomfort. There is some effusion at the right knee but ligaments are stable. The left knee has a well-healed anterior incision and flexion of 0-120 degrees. There is a good deal of

toggling over the medial compartment with valgus stressing. Standing x-rays [date not indicated] reveal bone-to-bone contact at the right knee and a cemented unicompartmental replacement in place at the left knee. Impression is severe osteoarthritis of the right knee and mild medial instability of the left knee with previous unicompartmental replacement. Recommendation is for TKR on the right.

The patient's medical history and treatment was reviewed in a report dated December 5, 2008. In January 2004 the patient underwent left knee surgery of arthroscopy, partial medial meniscectomy, osteochondral fracturing, partial lateral meniscectomy and extensive synovectomy. He was provided and unloader brace and Synvisc injections for continuing pain. He was deemed MMI in September 2004. He underwent left knee unicompartmental knee replacement in June 2005. Notes of November 2005 note he was quite happy with the result. The reviewer determined the patient should continue any rehabilitation with HEP.

The medical report of February 19, 2009 indicates the patient underwent RIGHT total knee replacement on May 28, 2008 which is doing fairly well. The LEFT knee was treated with unicompartmental replacement in June 2005 and subsequently required several arthroscopies. The left knee continues to give him problems. There is some swelling at the left knee, but the ligaments are intact to testing. He is provided Medrol and will be treated conservatively before considering left TKR, particularly in light of the fact that there appears to be some functional overlay occurring as this is a worker's compensation case. On reevaluation on March 24, 2009 the patient continues to have tenderness over the lateral aspect of the left knee. A corticosteroid injection was provided for tendonitis of the left knee. On April 23, 2009 a second corticosteroid injection was administered.

The patient was reevaluated on June 4, 2009 and reports the injections provide only about 2-3 weeks of relief. He is interested in pursuing a left TKR. He is noticing a varus deformity which has become progressively worse. He is provided Voltaren Gel.

Request for left knee revision TKR was not certified in review on July 22, 2009 with rationale that the complete clinical findings submitted for review did not contain a complete examination or gait analysis or standing radiographs or documentation of failure of conservative management. Additionally the BMI of the patient was not noted. The physical examination submitted notes tenderness over the medial joint line and a varus deformity of approximately 5 degrees. The clinical findings did not meet guideline criteria. A peer discussion was attempted but not realized.

Request for reconsideration for revision left knee TKR was considered in review on August 10, 2009 and recommended for non-certification. A peer discussion was attempted but not realized. The provider submitted reports documenting conservative treatment of medication and corticosteroid injections and examination findings of medial joint line tenderness and 5 degree varus deformity. Anterior/posterior drawer test and varus/valgus test are within normal limits. Standing x-rays reveal a cemented unicompartmental replacement in place at the left knee. A radiology report is not included and the date of the radiographs is not clarified. There is no mention of the patient attempting viscosupplementation.

The provider requested an IRO.

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

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.

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.

In March and April 2009 the patient is provided 2 corticosteroid injections to the left knee for tendonitis and tenderness over the lateral aspect of the knee. Undated x-rays reveal a cemented unicompartmental replacement in place at the left knee status post unicompartmental knee replacement in June 2005. In June 2009 the patient is noticing a progressively worsening varus deformity.

I would overturn the decision. In my opinion, revision surgery from unicompartmental to total knee Arthroplasty is indicated. The patient has a left unicompartmental knee Arthroplasty that is no longer functioning appropriately. Reports as far back as 2/8/08 indicate decreased walking tolerance. He has a "good deal of toggling over the medial compartment" which would indicate instability and failure of the uni-knee. He has persistent pain not relieved with medications or injections. X-rays revealed the uni-compartment knee. He also has a persistent varus deformity. Therefore, my recommendation is to disagree with the previous non-certification of the request for 1 Revision of the Left Total Knee Arthroplasty between 7/20/2009 and 9/18/2009.

The IRO's decision is consistent with the following guidelines:

#### **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
- X \_\_\_ 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

The Official Disability Guidelines - Knee and Leg Chapter (9-9-2009) Knee Replacement Surgery::

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. (Pettersson, 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)

#### 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)