

IRO NOTICE OF DECISION – WC



Claims Eval

Notice of Independent Review Decision

IRO REVIEWER REPORT - WC

November 12, 2012

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:

REVIEW FOR: RIGHT KNEE TOTAL REPLACEMENT INPATIENT STAY 27447 to complete by 12/7/12

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

American Board of Orthopaedic Surgery

REVIEW OUTCOME:

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

- Upheld (Agree)
- Overturned (Disagree)
- Partially Overturned (Agree in part/Disagree in part)

Provide a description of the review outcome that clearly states whether medical necessity exists for each of the health care services in dispute.

INFORMATION PROVIDED TO THE IRO FOR REVIEW:

- 8-9-12 office visit.

- 8-24-12 provided a rebuttal letter.
- 9-10-12 office visit.
- 9-11-12 performed a UR.
- 10-12-12 performed a UR.

PATIENT CLINICAL HISTORY [SUMMARY]:

the claimant presents for followup of her work injury. On the injury (xx/xx/xx) she fell down stairs when the electricity went out in a stair well. She suffered a right medial meniscus tear and had surgery, but she continued to have significant knee pain and limitations. After surgery she had multiple Synvisc injections (three) and failed to have any pain relief or increased function from that. Most recently has visit, orthopedic surgeon, who recommended that the next medically appropriate step of treatment would be a right total knee replacement. She has recently had an FCE in order to demonstrate her current functionality as a step in preparation of orthopedic surgeon as recommended by the ODG. The claimant is here for those results. Patient also has ongoing right SI joint pain and patient reports that she is going to have right SI joint injection this coming Monday. The claimant reports that she is still hurting. Her knee swelling still won't go down. She is using her mother's motorized chair. The claimant does not do house chores. She is not standing for any period of time. The claimant takes Lodine 200 mg 1-2 pills 2 or 3 times a day #90, Ultracet 4 a day #120 Refill Hydrocodone 7.5/500 2 at a time 4 times a day #120. The claimant is currently not working due to unable to ascend stairs at work and somnolent from pain medications. Prior to this injury, she was active with no limitations. where she does sedentary work. The claimant works. The claimant does have to take stairs. The claimant does not have to bend or stoop or kneel or squat or climb. The claimant walks with single point cane. Inspection of right knee reveals swelling and right medial joint line tenderness. She has pain at the right SI joint. FCE report received on 8/13/2012 and shows range of motion limitations of right knee. The claimant is unable to climb, crawl, kneel and has restrictions using the right lower extremity accordingly. Diagnosis: Right knee internal derangement, right SI strain, lumbar disc protrusions. Plan: Referral to ortho for evaluation for right knee replacement per recommendation after failed right knee medial meniscus surgery and failed three Synvisc injection trial. ODG has been referred to by this physician regarding total knee replacement and the data gathered to support the request for right total knee replacement: documented arthritis on x-ray, BMI 27.3 (less than 35), poor function as noted by recent, failed injections, failed medial meniscus repair. Refill today of Lodine 200 mg 1-2 pills TID #90, Tramadol 50mg 1-2 PO Q 4-6 hr PRN pain #120, Hydrocodone 7.5/325 1-2 OP 4-6 hrs PRN pain #120. Discontinue Ultracet. Remain off of work due to unable to take stairs and taking medications which cause somnolence. FCE report received on 8/13/2012 and showed range of motion limitations of right knee. Patient unable to climb, crawl, kneel and has restrictions using the right lower extremity. The evaluator was referring claimant to for evaluation of right knee replacement. This is due to failed right knee medial

meniscus surgery, failed Synvisc injections and next recommended treatment is right knee replacement as recommended by orthopedic surgeon, which is noted in his last clinic note. A DD doctor recently reported that treatment completed for right knee but not a MMI until right SI joint injection and that MMI date anticipated at 10/26/2012. The evaluator disagreed as the evaluator concurred that the patient has not recovered with respect to right knee injury, and that after failed meniscal surgery and Synvisc injections, the next appropriate step is right knee. DWC-73: The claimant was taken off work for one month.

8-24-12 provided a rebuttal letter challenging the findings on the peer review. The MRI is stating that after the previous medial meniscectomy, that there has been progressive degeneration to the surfaces of the knee joint that are full-thickness and that this is different from the prior MRI and shows progression. It was her impression based on the radiology report and based on her examination of the claimant that the progressive knee pain and swelling and degeneration relates to the injury itself in that the medial meniscus was torn leading up to surgical meniscus removal and degenerative wear and tear to the knee joint due weight-bearing on a knee which is missing the medial meniscus. In review of the facts of this case, on date of injury the claimant fell down stairs at work when the electricity went out in a stair well. The claimant suffered a right medial meniscus tear and had surgery, but the claimant continued to have significant knee pain and limitations and in fact suffered from progressively working knee pain and swelling to the point that the claimant is unable to ambulate without assistance. After surgery she had multiple Synvisc injections (three) and failed to have any pain relief or increased function from that. Most recently the claimant had a visit with, orthopedic surgeon, who recommended that the next medically appropriate step of treatment would be a right total knee replacement. The claimant has recently had an FCE in order to demonstrate her current poor ability to ambulate as a necessary fulfillment of requirements set out in the ODG as needed prior to consideration for TKR. Also, per the ODG TKR clearance recommendations, the claimant has documented arthritis on x-ray, BMI 27.3 (less than 35), poor function as noted by recent, failed injections, failed medial meniscus repair. For these reasons, the provider is submitting for preauthorization for right total knee replacement at this time.

9-10-12, the claimant presents with her NCM for followup for right knee injury and back pain. The claimant reports that she is hurting and having right medial knee pain. The claimant has had one SI injection which did help for 2.5 weeks, but the pain has returned. The claimant was told she might need another shot. The claimant went to the ER due to worsened back pain. The claimant received two injections there and x-rays of the back and hip. The claimant was having spasms, as well. The right knee pain is severe and woke her up from her sleep recently, 8 out of 10. The back pain is 10 out of 10. The claimant cannot stand up too long on the right knee and the claimant does not do any housework or cooking or cleaning. The claimant uses a cane and unable to weight-bear fully. The claimant is having weakness in the right leg which is concerning her. The claimant goes back to Advanced Pain Care on 9/12/2012 for the SI joint. The claimant has a DD appt on 9/17/2012. The evaluator sent all the records. The claimant has had four

injections to the right knee, the first was steroid. The last three were Synvisc and each a week apart. The Synvisc injections did not help. The claimant has been told that her right knee is bone on bone and that she needs a knee replacement. The claimant was not having any pain or limitation or medical diagnosis of problem to the right knee prior to this fall. The knee condition has progressed to severely limiting during the course of treatment for the knee injury. No other complaints at this time. On exam, the claimant walks slowly with an antalgic gait with a single point cane. Swelling at the right medial knee. The claimant has 90 degrees flexion, 0 degrees extension. Assessment: Right knee medial meniscus tear. Plan: The claimant has been denied request for right TKR twice. The evaluator was submitting for IRO review. It is the opinion that the claimant would benefit from a right knee replacement after failed right knee medial meniscus surgery and failed three Synvisc injection trial. ODG has been referred to by this provider regarding total knee replacement and the data gathered to support the request for right total knee replacement: documented arthritis on x-ray, BMI 27.3 (less than 35), poor function as noted by recent, failed injections, failed medial meniscus repair. The claimant is to keep appointment with DD doctor on 9/17/2012. A DD doctor recently reported that treatment completed for right knee but not a MMI until right SI joint injection and that MMI date anticipated at 10/26/2012. The evaluator disagreed as the evaluator concurred that the patient has not recovered with respect to right knee injury, and that after failed meniscal surgery and Synvisc injections, the next appropriate step is right knee replacement. The claimant is to keep appointment on 9/12/2012 for right SI joint injection. Refill today of Lodine 200 mg 1-2 pills TID #90, Hydrocodone 7.5/325 1-2 PO 4-6 hrs PRN pain #240. Discontinue Ultracet. She does not need refill of Tramadol today (50 mg 1-2 PO Q 4 -6 hours PRN).

9-11-12 performed a UR. There was 1 clinical note submitted for review in support of the current request and 2 previous peer reviews. The clinical documentation did not include recent imaging studies of the patient's right knee to indicate pathology to support the current request. Furthermore, the clinical documentation submitted for review lacked evidence of significant objective clinical symptomatology upon physical exam of the patient. Previous peer reviews noted that a denial of the support of total knee arthroplasty, as felt the patient's condition was disease of life and not as a direct result of her work-related injury. Given the lack of documentation submitted for review in support of the current request, the request for right knee total replacement inpatient stay 27447 to complete by 11/16/2012 is non-certified.

10-12-12 performed a UR. The clinical note from 09/10/2012 indicates the patient has failed conservative care to include 1 steroid injection and 3 Synvisc injections. The clinical note also indicates the patient's right knee is bone-on-bone; however, official imaging reports were not submitted for review. While the patient is noted to have decreased range of motion of the right knee and no relief with conservative care, it is not documented that the patient has nighttime joint pain to meet subjective clinical findings criteria in Official Disability Guidelines for the requested treatment. There is also no formal imaging report or official operative report indicating the patient has osteoarthritis to support the requested total knee

replacement and meet Official Disability Guidelines criteria. As such, the reconsideration for right knee total replacement inpatient stay 27447 to complete by 12/07/2012 is non-certified.

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

Following review of the available medical records, there are minimal attempts at non-surgical conservative care for the right knee documented. There is no documentation as to whether the claimant had cortisone injections or is following a home exercise program. The claimant's response to the lower back pain along with excessive intake of pain medications raises concerns for a likely poor outcome and makes her a poor candidate for the requested surgery. Therefore, the request for right knee total replacement inpatient stay 27447 to complete by 12/7/12 is not reasonable or medically necessary at this time.

Per ODG 2012 Total knee 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) 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) 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) 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. (Pettersen, 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) More than 95% of patients report that they are satisfied with the outcome of their total knee replacement 1 year after surgery. Factors that increased risk for dissatisfaction were younger age, being female, valgus alignment of the knee, and posttraumatic arthritis. (Ayers, 2010) Patients undergoing total knee arthroplasty (TKA) should receive ongoing COX-2 Inhibitor therapy for 6 weeks after their procedure, according to this unpublished RCT. (Schroer, 2011) In deciding who should have knee joint replacement surgery for osteoarthritis, we need to balance potential benefits against potential risks, using the concept of

capacity to benefit, that the benefits of overcoming functional limitations should considerably outweigh any likely risks or unintended consequences in an individual by a considerable margin for it to be indicated for that person. (Dieppe, 2011) The prevalence of knee pain and knee replacement surgeries has risen substantially during the last 20 years, but the reasons for the increase remain obscure. The rise in knee surgeries may be linked more to an increased awareness of knee pain, as opposed to aging, increased obesity, or radiographic knee osteoarthritis. The authors recommend treating physicians carefully consider, from the signs and symptoms of the patient presenting with knee pain, a broad differential diagnosis, since not all knee pain in middle-aged and older adults is the result of osteoarthritis. (Nguyen, 2011) Knee replacement surgery is a success story of modern medicine, yet consensus is lacking about the precise indications for the procedure. The number of total knee replacements (TKRs) in the United States increased from 31.2 per 100,000 person-years in the period from 1971 to 1976 to 220.9 per 100,000 person-years in 2008, for a total that year of more than 650,000 procedures. Demand for knee replacement will continue to grow in light of aging populations and rising obesity rates, which both portend higher rates of osteoarthritis. Outcomes data break down into those for TKRs vs those for partial-knee replacements (PKRs). Surgeons and their patients sometimes will choose a PKR for the sake of a more normal-feeling knee, less extensive surgery, and a lower risk for infection, knowing that they have the option of converting to a TKR if need be. However, partial replacement has a higher risk for revision surgery than total replacement, and a conversion TKR is more likely to require more follow-up than a primary TKR, according to registry data. In addition to recommending better patient selection and better reporting of outcomes, particularly as it relates to individual implant devices, the authors also call for new strategies to treat early-stage osteoarthritis in younger patients that will avoid the need for major surgery altogether. (Carr, 2012)

Unicompartmental knee replacement: Recommended as an option. Unicompartmental knee replacement is effective among patients with knee OA restricted to a single compartment. (Zhang, 2008) In this RCT, the early results demonstrated that the unicompartmental knee replacement (UKR) group had less complications and more rapid rehabilitation than the total knee replacement (TKR) group. At five years there were an equal number of failures in the two groups but the UKR group had more excellent results and a greater range of movement. The 15 years survivorship rate based on revision or failure for any reason was 89.8% for UKR and 78.7% for TKR. The better early results with UKR are maintained at 15 years with no greater failure rate. (Newman, 2009) Long-term studies are needed to appropriately define the role of less invasive unicompartmental surgical approaches. (Borus, 2008) Unicondylar knee arthroplasty (UKA) and total knee arthroplasty (TKA) are both recommended for the treatment of medial compartment osteoarthritis in the varus knee. Citing the arduous rehabilitation and bone loss associated with traditional knee arthroplasty, some opt for UKA, especially in young, high-demand patients. (McAllister, 2008) With appropriate patient selection, UKAs are a successful option for patients with osteoarthritis. (Dalury, 2009)

Bicompartmental knee replacement: Not recommended. See separate entry for [Bicompartmental knee replacement](#).

Obesity: 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 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](#)) Obese patients presented for and underwent joint replacement surgery at a younger age as compared to nonobese patients. ([Gandhi, 2010](#)) Adverse events (eg, perioperative complications, post-op wound infections) occurred in 14.2% of the non-obese, 22.6% of the obese and 35.1% of the morbidly obese patients after total knee replacement. ([Dowsey, 2010](#)) A 2-year review of knee and hip replacement surgeries found that complication rates in obese patients were low, supporting doing the procedures even in the heaviest patients, but the review did show that hospital stays were longer in those who were obese than in those who were not. ([Parks, 2010](#)) Obese patients may have clinically significant weight loss after total joint arthroplasty, since their osteoarthritis had limited their mobility and ability to exercise. When weight was corrected for natural gain, the overall study population had a trend toward weight loss, and 19.9% of the study population had clinically significant weight loss. ([Stets, 2010](#))

Minimally invasive total knee arthroplasty: No significant benefit was seen in using a minimally invasive surgical technique over a standard traditional technique for total knee arthroplasty, but the study did not focus on quality-of-life outcomes (eg, length of hospital stay, reliance on pain medications, and the need for inpatient rehabilitation after discharge), in which the minimally invasive approach is purported to show an advantage. ([Wülker, 2010](#))

Bilateral knee replacement: 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](#)) Recommend that congestive heart failure and pulmonary hypertension be contraindications for bilateral total knee arthroplasty (BTKA), but not age per se. BTKA is seen as offering advantages over staged unilateral knee replacement surgery, including reduced time in the hospital, decreased costs, and a faster return to active life. The procedure also has been shown, however, to carry an increased risk for morbidity and mortality compared with unilateral knee replacement, with overall incidence of major in-hospital complications and mortality of 9.5%. Patients with the highest risk for adverse outcomes were those with congestive heart failure (odds ratio [OR], 5.5)

compared with those without comorbidities, and those with pulmonary hypertension (OR, 4.1). Other risk factors included older age, with patients who were 65 to 74 years old or older than 75 years having about twice the likelihood of complications compared with patients 45 to 65 years old. Men also showed a 50% greater risk for complications than women. Older age, however, should not necessarily rule out patients who can otherwise benefit from bilateral knee replacement, and age by itself will be a risk factor in any kind of surgery. Factors that can increase the risk with congestive heart failure include bone particles and marrow entering the bloodstream to embolize in the pulmonary vasculature and other organs. (Memtsoudis, 2011)

Revision total knee arthroplasty is an effective procedure for failed knee arthroplasties based on global knee rating scales. (Saleh, 2002) It would be recommended for failure of the originally approved arthroplasty.

ODG Indications for Surgery™ -- Knee arthroplasty:

Criteria for knee joint replacement (If only 1 compartment is affected, a unicompartmental or partial replacement may be considered. 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 AND Documentation of current functional limitations demonstrating necessity of intervention. PLUS

3. Objective Clinical Findings: Over 50 years of age AND Body Mass Index of less than 35, where increased BMI poses elevated risks for post-op complications. PLUS

4. Imaging Clinical Findings: Osteoarthritis on: Standing x-ray. OR Arthroscopy. (Washington, 2003) (Sheng, 2004) (Saleh, 2002) (Callahan, 1995)

For average hospital LOS if criteria are met, see Hospital length of stay (LOS). See also Skilled nursing facility LOS (SNF)

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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)**