

Case Number:	CM14-0127395		
Date Assigned:	08/15/2014	Date of Injury:	06/01/2000
Decision Date:	09/25/2014	UR Denial Date:	08/04/2014
Priority:	Standard	Application Received:	08/12/2014

HOW THE IMR FINAL DETERMINATION WAS MADE

MAXIMUS Federal Services sent the complete case file to an expert reviewer. He/she has no affiliation with the employer, employee, providers or the claims administrator. The expert reviewer is Board Certified in Orthopedic Surgery and is licensed to practice in California. He/she has been in active clinical practice for more than five years and is currently working at least 24 hours a week in active practice. The expert reviewer was selected based on his/her clinical experience, education, background, and expertise in the same or similar specialties that evaluate and/or treat the medical condition and disputed items/services. He/she is familiar with governing laws and regulations, including the strength of evidence hierarchy that applies to Independent Medical Review determinations.

CLINICAL CASE SUMMARY

The expert reviewer developed the following clinical case summary based on a review of the case file, including all medical records:

This is a 64-year-old female who sustained a vocational injury on 06/01/00. The medical records provided for review include an office note dated 07/14/14 documenting the diagnosis of right knee degenerative joint disease and complaints of severe right knee pain and difficulty weight bearing. Physical examination revealed synovial thickening, 1+ effusion, medial and lateral joint line tenderness, retropatellar tenderness and range of motion approximately 2 to 95 degrees. An intraarticular right knee injection was provided at that time. The current request is for a right total knee replacement with an inpatient three to five day stay.

IMR ISSUES, DECISIONS AND RATIONALES

The Final Determination was based on decisions for the disputed items/services set forth below:

Inpatient (3-5) days, right total knee replacement: Upheld

Claims Administrator guideline: The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG), Knee and Leg.

MAXIMUS guideline: Decision based on MTUS ACOEM Chapter 13 Knee Complaints Page(s): 343-345. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG); Knee & Leg chapter: 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) 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

Decision rationale: The California ACOEM Guidelines and the Official Disability Guidelines do not recommend the request for a right total knee replacement with a three to five day inpatient stay. The ACOEM Guidelines note that prior to considering surgical intervention for the knee there should be documentation that the claimant has failed to increased range of motion and strength of the musculature around the knee with exercise programs including formal physical therapy and a home exercise program. Official Disability Guidelines specifically note that prior to considering surgical intervention, the claimant should have a body mass index of less than 35 and the current body mass index of the claimant is not noted in the documentation presented for review. Also, ODG recommends that the claimant has attempted, failed and exhausted conservative treatment in the form of exercise therapy, NSAIDs or viscosupplementation and steroid injections prior to considering surgical intervention. There is no documentation that the claimant has attempted, failed and exhausted conservative treatment prior to considering surgical intervention. In addition, Official Disability Guidelines also note that there must be diagnostic imaging or previous arthroscopy intraoperative findings establishing end stage degenerative joint disease in at least one of the three compartments with a varus or valgus deformity. There is no documentation of a diagnostic study confirming end stage arthritis in the claimant's knee.

Official Disability Guidelines support a three day length of stay and the request of a three to five day length of stay exceeds the recommended guidelines per Official Disability Guidelines following total knee replacement. Therefore, based on the documentation presented for review and in accordance with California ACOEM Guidelines and Official Disability Guidelines, the request for the right total knee replacement and three to five day inpatient stay cannot be considered medically necessary.

Preoperative Sx clearance: Upheld

Claims Administrator guideline: The Claims Administrator did not cite any medical evidence for its decision.

MAXIMUS guideline: The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation American College of Occupational and Environmental Medicine (ACOEM), 2nd Edition, (2004); Chapter 7, page 127 Introduction The occupational health practitioner may refer to other specialists if a diagnosis is uncertain or extremely complex, when psychosocial factors are present, or when the plan or course of care may benefit from additional expertise. An independent medical assessment also may be useful in avoiding potential conflict(s) of interest when analyzing causation or when prognosis, degree of impairment, or work capacity requires clarification. When a physician is responsible for performing an isolated assessment of an examinee's health or disability for an employer, business, or insurer, a limited examinee-physician relationship should be considered to exist. A referral may be for: -Consultation: To aid in the diagnosis, prognosis, therapeutic management, determination of medical stability, and permanent residual loss and/or the examinee's fitness for return to work. A consultant is usually asked to act in an advisory capacity, but may sometimes take full responsibility for investigation and/or treatment of an examinee or patient. -Independent Medical Examination (IME): To provide medicolegal documentation of fact, analysis, and well-reasoned opinion, sometimes including analysis of causality. An IME differs from consultation in that there is no doctor-patient relationship established and medical care is not provided. It may be a means of medical clarification or adjudication in which the physician draws conclusions regarding diagnosis, clinical status, causation, work-relatedness, testing and treatment efficacy and requirements, physical capacities, impairment, and prognosis based on available information. The evaluations must be independent, impartial, and without bias. The client often may be the employer, insurer, state authority, or attorney. Citation(s): Harris J, Occupational Medicine Practice Guidelines, 2nd Edition (2004) - pp. 127 Hegmann K, Occupational Medicine Practice Guidelines, 2nd Ed (2008 Revision) - pp. 503.

Decision rationale: Since the primary procedure is not medically necessary, none of the associated services are medically necessary.

Post op physical therapy, 12 sessions: Upheld

Claims Administrator guideline: The Claims Administrator did not cite any medical evidence for its decision.

MAXIMUS guideline: Decision based on MTUS Postsurgical Treatment Guidelines.

Decision rationale: The request for the right total knee replacement and three to five day inpatient stay cannot be considered medically necessary. Therefore, the request for postoperative physical therapy is also not recommended as medically necessary.

Post op brace: Upheld

Claims Administrator guideline: The Claims Administrator did not cite any medical evidence for its decision.

MAXIMUS guideline: Decision based on MTUS ACOEM Chapter 13 Knee Complaints Page(s): 339. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG); Knee & Leg chapter: Knee brace Recommended as indicated below. Recommend valgus knee braces for knee OA. Knee braces that produce a valgus moment about the knee markedly reduce the net knee adduction moment and unload the medial compartment of the knee, but could be impractical for many patients. There are no high quality studies that support or refute the benefits of knee braces for patellar instability, ACL tear, or MCL instability, but in some patients a knee brace can increase confidence, which may indirectly help with the healing process. In all cases, braces need to be used in conjunction with a rehabilitation program and are necessary only if the patient is going to be stressing the knee under load. (Bengal, 1997) (Crossley, 2001) (D'hondt-Cochrane, 2002) (Miller, 1997) (Yeung-Cochrane, 2002) (Van Tiggelen, 2004) There are no data in the published peer-reviewed literature that shows that custom-fabricated functional knee braces offer any benefit over prefabricated, off-the-shelf braces in terms of activities of daily living. (BlueCross BlueShield, 2004) The use of bracing after anterior cruciate ligament (ACL) reconstruction cannot be rationalized by evidence of improved outcome including measurements of pain, range of motion, graft stability, or protection from injury. (Wright, 2007) Among patients with knee OA and mild or moderate valgus or varus instability, a knee brace can reduce pain, improve stability, and reduce the risk of falling. (Zhang, 2008) Patellar taping, and possibly patellar bracing, relieves chronic knee pain, according to a recent meta-analysis. Patellar taping may be preferred over bracing due to the fact that there is much more evidence for taping than bracing, and also because taping produces better clinical results in terms of reductions in pain than patellar bracing, plus patients are more active in their rehabilitation with taping than with bracing. (Warden, 2008) This study recommends the unloader (valgus) knee brace for pain reduction in patients with osteoarthritis of the medial compartment of the knee. (Gravlee, 2007) Evidence that knee braces used for the treatment of osteoarthritis mediate pain relief and improve function by unloading the joint (increasing the joint separation) remains inconclusive. When knees with medial compartment osteoarthritis are braced, neutral alignment performs as well as or better than valgus alignment in reducing pain, disability, muscle cocontraction, and knee adduction excursions. Pain relief may result from diminished muscle cocontractions rather than from so-called medial compartment unloading. (Ramsey, 2007) (Chew, 2007) The results of this systematic review suggest that knee braces and foot orthoses are effective in decreasing pain, joint stiffness, and drug dosage, and they also improve proprioception, balance, Kellgren/Lawrence grading, and physical function scores in subjects with varus and valgus kn

Decision rationale: The request for the right total knee replacement and three to five day inpatient stay cannot be considered medically necessary. Therefore, the request for a knee brace is also not recommended as medically necessary.

Post op cold therapy unit, purchase: Upheld

Claims Administrator guideline: The Claims Administrator did not cite any medical evidence for its decision.

MAXIMUS guideline: The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG); Knee & Leg chapter: Continuous-flow cryotherapy Recommended as an option after surgery, but not for nonsurgical treatment. Postoperative use generally may be up to 7 days, including home use. In the postoperative setting, continuous-flow cryotherapy units have been proven to decrease pain, inflammation, swelling, and narcotic usage; however, the effect on more frequently treated acute injuries (e.g., muscle strains and contusions) has not been fully evaluated. Continuous-flow cryotherapy units provide regulated temperatures through use of power to circulate ice water in the cooling packs. (Hubbard, 2004) (Morsi, 2002) (Barber, 2000) The available scientific literature is insufficient to document that the use of continuous-flow cooling systems (versus ice packs) is associated with a benefit beyond convenience and patient compliance (but these may be worthwhile benefits) in the outpatient setting. (BlueCross BlueShield, 2005) This meta-analysis showed that cryotherapy has a statistically significant benefit in postoperative pain control, while no improvement in postoperative range of motion or drainage was found. As the cryotherapy apparatus is fairly inexpensive, easy to use, has a high level of patient satisfaction, and is rarely associated with adverse events, we believe that cryotherapy is justified in the postoperative management of knee surgery. (Raynor, 2005) There is limited information to support active vs passive cryo units. Aetna considers passive hot and cold therapy medically necessary. Mechanical circulating units with pumps have not been proven to be more effective than passive hot and cold therapy. (Aetna, 2006) This study concluded that continuous cold therapy devices, compared to simple icing, resulted in much better nighttime pain control and improved quality of life in the early period following routine knee arthroscopy. (Woolf, 2008) Two additional RCTs provide support for use after total knee arthroplasty (TKA). Cold compression reduced blood loss by 32% and pain medication intake by 24%. (Levy, 1993) It improved ROM and reduced hospital stay by 21%. (Kullenberg, 2006) See also Cold/heat packs. Recent research: This systematic review concluded that solely an analgesic effect was demonstrated by the use of continuous cooling. (Cina-Tschumi, 2007) Another systematic review concluded that, despite some early gains, cryotherapy after TKA yields no apparent lasting benefits, and the current evidence does not support the routine use of cryotherapy after TKA. (Adie, 2010) Although the use of cryotherapy may not be a statistically effective modality, according to this systematic review, it may provide patient benefits. (Markert, 2011).

Decision rationale: The request for the right total knee replacement and three to five day inpatient stay cannot be considered medically necessary. Therefore, the request for purchase of a postoperative cold therapy unit is also not recommended as medically necessary.

CMP machine, rental 3 weeks: Upheld

Claims Administrator guideline: The Claims Administrator did not cite any medical evidence for its decision.

MAXIMUS guideline: The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG); Knee & Leg chapter: Continuous passive motion (CPM) Recommended as indicated below, for in-hospital use, or for home use in patients at risk of a stiff knee, based on demonstrated compliance and measured improvements, but the beneficial effects over regular PT may be small. Routine home use of CPM has minimal benefit. Although research suggests that CPM should be implemented in the first rehabilitation phase after surgery, there is substantial debate about the duration of each session and the total period of CPM application. A Cochrane review on this topic concluded that short-term use of CPM leads to greater short-term range of motion. But in a recent RCT results indicated that routine use of prolonged CPM should be reconsidered, since neither long-term effects nor better functional performance was detected. The experimental group received CPM + PT in the home situation for 17 consecutive days after surgery, whereas the usual care group received the same treatment during the in-hospital phase (i.e. about four days), followed by PT alone (usual care) in the first two weeks after hospital discharge. (Lenssen, 2008) Continuous passive motion (CPM) combined with PT, may offer beneficial results compared to PT alone in the short-term rehabilitation following total knee arthroplasty. Results favoring CPM were found for the main comparison of CPM combined with physical therapy (PT) versus PT alone at end of treatment. For the primary outcomes of interest, CPM combined with PT was found to statistically significantly increase active knee flexion and decrease length of stay. CPM was also found to decrease the need for post-operative manipulation. CPM did not significantly improve passive knee flexion and passive or active knee extension. (Milne-Cochrane, 2003) (Kirschner, 2004) (Brosseau, 2004) (Bennett, 2005) (Lenssen, 2006) Continuous passive motion can stimulate chondrocyte production of proteoglycan 4 (PRG4), a molecule found in synovial fluid with putative lubricating and chondroprotective properties. (Nugent-Derfus, 2006) A recent Cochrane review concluded that there is high-quality evidence that continuous passive motion increases passive knee flexion range of motion (mean difference 2 degrees) and active knee flexion range of motion (mean difference 3 degrees), but that these effects are too small to be clinically worthwhile, and there is low-quality evidence that continuous passive motion has no effect on length of hospital stay but reduces the need for manipulation under anaesthesia. (Harvey, 2010) The adjunctive home use of CPM may be an effective treatment option for patients at risk of knee flexion contractures, regardless of whether the patient is being treated as part of a worker's compensation claim or not. Recent literature suggests that routine home use of CPM has minimal benefit when combined with standard physical therapy, but studies conducted in a controlled ho

Decision rationale: The request for the right total knee replacement and three to five day inpatient stay cannot be considered medically necessary. Therefore, the request for postoperative rental of a CPM machine for three weeks is also not recommended as medically necessary.

Rehab 7 days with occupational therapy: Upheld

Claims Administrator guideline: The Claims Administrator did not cite any medical evidence for its decision.

MAXIMUS guideline: The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG); Knee & Leg chapter: Skilled nursing facility (SNF) care Recommended if necessary after hospitalization when the patient requires skilled nursing or skilled rehabilitation services, or both, on a 24-hour basis. A Skilled Nursing Facility or SNF, has Registered Nurses who help provide 24-hour care to people who can no longer care for themselves due to physical, emotional, or mental conditions. A licensed physician supervises each patient's care and a nurse or other medical professional is almost always on the premises. This may include: an R.N. doing wound care and changing dressings after a major surgery, or administering and monitoring I.V. antibiotics for a severe infection; a physical therapist helping to correct strength and balance problems that have made it difficult for a patient to walk or get on and off the bed, toilet or furniture; a speech therapist helping a person regain the ability to communicate after a stroke or head injury; an occupational therapist helping a person relearn independent self-care in areas such as dressing, grooming and eating. (CMS, 2007) (Park, 2013) Subjects discharged from day rehabilitation for the rehabilitation for total knee arthroplasty had similar or improved outcomes compared with subjects discharged from SNF at a lower cost and shorter stay. (Kathrins, 2013) See also Skilled nursing facility LOS (length of stay). Criteria for skilled nursing facility care (SNF):- The patient was hospitalized for at least three days for major or multiple trauma, or major surgery (e.g. spinal surgery, total hip or knee replacement) and was admitted to the SNF within 30 days of hospital discharge. - A physician certifies that the patient needs SNF care for treatment of major or multiple trauma, post-operative significant functional limitations, or associated significant medical comorbidities with new functional limitations that preclude management with lower levels of care (e.g. COPD, heart disease, ventilatory support, spinal cord injury, significant head injury with cognitive deficit).- The patient has a significant new functional limitation such as the inability to ambulate more than 50 feet, or perform activities of daily living (such as self care, or eating, or toileting). - The patient requires skilled nursing or skilled rehabilitation services, or both, on a daily basis or at least 5 days per week. Skilled nursing and skilled rehabilitation services are those which require the skills of technical or professional personnel such as nurses, physical therapists, and occupational or speech therapists. In order to be deemed skilled, the service must be so inherently complex that it can be safely and effectively performed only by, or under the supervision of, professional or technical personnel. The patient must be able to benefit from, and participate with at least 3 hours per day of physical therapy, occupational therapy and / or speech therapy.- Trea

Decision rationale: The request for the right total knee replacement and three to five day inpatient stay cannot be considered medically necessary. Therefore, the request for seven days rehab stay with occupational therapy is also not recommended as medically necessary.