

Case Number:	CM14-0093276		
Date Assigned:	08/06/2014	Date of Injury:	11/17/2012
Decision Date:	09/12/2014	UR Denial Date:	05/30/2014
Priority:	Standard	Application Received:	06/19/2014

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:

The claimant is a 46 year-old female who injured her left knee in a work related accident on 11/17/12. Clinical records provided for review include a 04/15/14 progress report describing continued complaints of left knee pain and that an MRI scan revealed patellar chondromalacia. Physical exam showed motion from 2-95 degrees with medial and lateral joint line tenderness, and no effusion, ligamentous laxity or instability. Based on failed conservative measures, operative arthroplasty was recommended for this individual. Previous treatment has included medication management and prior surgical arthroscopy of 06/11/13 that revealed degenerative findings to all three compartments. There is no indication of recent injection therapy or other forms of care. No documentation of this individual's body mass index was given.

IMR ISSUES, DECISIONS AND RATIONALES

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

Left 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, Knee and Leg Chapter, Procedure summary last updated 03/31/2014 - knee arthroplasty.

MAXIMUS guideline: The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG) Treatment in Worker's Comp, 18th Edition, 2013 Updates: knee procedure - 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"

Decision rationale: The California MTUS and ACOEM Guidelines do not provide criteria relevant to this request. Based on the Official Disability Guidelines (ODG), the request for left total knee replacement is not recommended as medically necessary. The ODG Guidelines recommend that claimants should be greater than 50 years old, have a body mass index of less than 35, and exhaust all benefit of conservative treatment. For this claimant, there is no indication of a body mass index or indication of prior conservative care that has included injection therapy of a corticosteroid or viscosupplementation. Recent imaging demonstrates isolated change to the patellofemoral joint. The individual is also 46, which is less than guideline criteria of 50 years or older for whom arthroplasty is recommended. Given the above, the acute need of surgical process would not be supported.

Assistant Surgeon: Upheld

Claims Administrator guideline: The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines, Knee and Leg Chapter, Procedure summary last updated 03/31/2014 - knee arthroplasty.

MAXIMUS guideline: The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG): Milliman Care Guidelines 18th edition: assistant surgeon Assistant Surgeon Guidelines (Codes 27256 to 27465) CPT® Y/N Description 27447 Y Arthroplasty, knee, condyle and plateau; medial AND lateral compartments with or without patella resurfacing (total knee arthroplasty).

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

Lovenox 30mg #28 Injections: Upheld

Claims Administrator guideline: The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines, Knee and Leg Chapter, Procedure summary last updated 03/31/2014 - knee arthroplasty.

MAXIMUS guideline: The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG) Treatment in Worker's Comp, 18th Edition, 2013 Updates: knee procedure - Venous thrombosis Recommend identifying subjects who are at a high risk of developing venous thrombosis and providing prophylactic measures such as consideration for anticoagulation therapy. Minor injuries in the leg are associated with greater risk of venous thrombosis. The relative risk for venous thrombosis is 3-fold greater following minor injury, especially if injury occurs in the 4 weeks prior to thrombosis, is located in the leg, and involves multiple injuries or rupture of muscle or ligament. Risk for venous thrombosis is higher in those with leg injury combined with family history of venous thrombosis (12-fold risk), Factor V Leiden mutation (50-fold risk), or Factor II 20210A mutation (9-fold risk). (van Stralen, 2008) A venous thrombosis is a blood clot that forms within a vein. Deep venous thromboses (DVTs) form in the deep veins of the legs, and if a piece of a blood clot formed in a vein breaks off it can be transported to the right side of the heart, and from there into the lungs, and is called an embolism, and this process called a venothromboembolism (VTE). Risk factors for venous thrombosis include immobility, surgery, and prothrombotic genetic variants. Studies have addressed the risk for thrombosis following major injury, and minor events, including travel, minor surgery, and minor trauma, are linked to a 3-fold increased risk for venous thrombosis. Venothromboembolism (VTE) is an important condition in hospitalized patients accounting for significant morbidity and mortality. Those at high risk should be considered for anticoagulation therapy during the post-hospitalization period. (Yale, 2005) Aspirin may be the most effective choice to prevent pulmonary embolism (PE) and venous thromboembolism (VTE) in patients undergoing orthopaedic surgery, according to a new study examining a potential role for aspirin in these patients. Patients who received aspirin had a lower VTE risk score than the patients who received warfarin. Patients who received aspirin had a much lower use of sequential compression devices than high-risk patients, but even aspirin

patients should receive sequential compression as needed. (Bozic, 2008) Patients with suspected deep vein thrombosis (DVT) of the lower extremities are usually investigated with ultrasonography either by the proximal veins (2-point ultrasonography) or the entire deep vein system (whole-leg ultrasonography). The latter approach is thought to be better based on its ability to detect isolated calf vein thrombosis; however, it requires skilled operators and is mainly available only during working hours. These two ultrasound-based evaluations, both with their advantages and disadvantages, are about equally effective at guiding the management of patients with suspected lower-extremity deep-vein thrombosis (DVT), conclude the authors of a large RCT

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

Oxycontin 10mg #20: Upheld

Claims Administrator guideline: Decision based on MTUS Chronic Pain Treatment Guidelines Opioids, criteria for use.

MAXIMUS guideline: Decision based on MTUS Chronic Pain Treatment Guidelines Opioids-Criteria For Use Page(s): 76-80.

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

Oxycodone 10mg #60: Upheld

Claims Administrator guideline: Decision based on MTUS Chronic Pain Treatment Guidelines Opioids, criteria for use.

MAXIMUS guideline: Decision based on MTUS Chronic Pain Treatment Guidelines Opioids-Criteria For Use Page(s): 76-80.

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

Post-operative Physical Therapy, 12 sessions: Upheld

Claims Administrator guideline: The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines, Knee and Leg Chapter, Procedure summary last updated 03/31/2014 - knee arthroplasty.

MAXIMUS guideline: Decision based on MTUS Postsurgical Treatment Guidelines.

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

Cold Therapy Unit, Purchase: Upheld

Claims Administrator guideline: The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines, Knee and Leg Chapter, Procedure summary last updated 03/31/2014 - knee arthroplasty.

MAXIMUS guideline: Decision based on MTUS ACOEM Chapter 13 Knee Complaints, Chapter 14 Ankle and Foot Complaints Page(s): 337-339.

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

Walker Purchase: Upheld

Claims Administrator guideline: The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines, Knee and Leg Chapter, Procedure summary last updated 03/31/2014 - knee arthroplasty.

MAXIMUS guideline: The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG) Treatment in Worker's Comp, 18th Edition, 2013 Updates: knee procedure - Walking aids (canes, crutches, braces, orthoses, & walkers) Recommended, as indicated below. Almost half of patients with knee pain possess a walking aid. Disability, pain, and age-related impairments seem to determine the need for a walking aid. Nonuse is associated with less need, negative outcome, and negative evaluation of the walking aid. (Van der Esch, 2003) There is evidence that a brace has additional beneficial effect for knee osteoarthritis compared with medical treatment alone, a laterally wedged insole (orthosis) decreases NSAID intake compared with a neutral insole, patient compliance is better in the laterally wedged insole compared with a neutral insole, and a strapped insole has more adverse effects than a lateral wedge insole. (Brouwer-Cochrane, 2005) Contralateral cane placement is the most efficacious for persons with knee osteoarthritis. In fact, no cane use may be preferable to ipsilateral cane usage as the latter resulted in the highest knee moments of force, a situation which may exacerbate pain and deformity. (Chan, 2005) While recommended for therapeutic use, braces are not necessarily recommended for prevention of injury. (Yang, 2005) Bracing after anterior cruciate ligament reconstruction is expensive and is not proven to prevent injuries or influence outcomes. (McDevitt, 2004) Recommended, as indicated below. Assistive devices for ambulation can reduce pain associated with OA. Frames or wheeled walkers are preferable for patients with bilateral disease. (Zhang, 2008) While foot orthoses are superior to flat inserts for patellofemoral pain, they are similar to physical therapy and do not improve outcomes when added to physical therapy in the short-term management of patellofemoral pain. (Collins, 2008) In patients with OA, the use of a cane or walking stick in the hand contralateral to the symptomatic knee reduces the peak knee adduction moment by 10%. Patients must be careful not to use their cane in the hand on the same side as the symptomatic leg, as this technique can actually increase the knee adduction moment. Using a cane in the hand contralateral to the symptomatic knee might shift the body's center of mass towards the affected limb, thereby reducing the medially directed ground reaction force, in a similar way as that achieved with the lateral trunk lean strategy described above. Cane use, in conjunction with a

slow walking speed, lowers the ground reaction force, and decreases the biomechanical load experienced by the lower limb. The use of a cane and walking slowly could be simple and effective intervention strategies for patients with OA. In a similar manner to which cane use unloads the limb, weight loss also decreases load in the limb to a certain extent and should be considered as a long-term strategy, especially for overweight individuals. (Reeves, 2011).

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

CPM Rental, 14 days.: Upheld

Claims Administrator guideline: The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines, Knee and Leg Chapter, Procedure summary last updated 03/31/2014 - knee arthroplasty.

MAXIMUS guideline: The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG) Treatment in Worker's Comp, 18th Edition, 2013 Updates: knee procedure - 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 physic

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