Case Number:	CM14-0164258		
Date Assigned:	10/09/2014	**Date of Injury:**	08/25/2010
Decision Date:	11/14/2014	**UR Denial Date:**	09/29/2014
Priority:	Standard	**Application Received:**	10/06/2014

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 Physical Medicine & Rehabilitation, has a subspecialty in Pain Management 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 injured worker is a 60 year-old male with a date of injury of 8/25/2010. The mechanism of injury was a fall from about 15 feet from a ladder. The patient's industrially related diagnoses include ankle joint pain, knee pain, and the patient has undergone talonavicular arthrodesis and calcaneotibial arthrodesis on 6/24/2013. Part of the cause of the knee pain is due to change in body mechanics from the ankle fusion. The disputed issue is a request for a knee brace with lateral straps. A utilization review determination had noncertified this request. The stated rationale for the denial was that there was a "lack of documentation indicating the patient would be climbing ladders or carrying boxes for work."

IMR ISSUES, DECISIONS AND RATIONALES

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

One left knee brace with lateral straps and velcro: Upheld

Claims Administrator guideline: Decision based on MTUS ACOEM Chapter 13 Knee Complaints Page(s): 346-347.

MAXIMUS guideline: Decision based on MTUS ACOEM Chapter 13 Knee Complaints Page(s): 340.

Decision rationale: With regard to this request, the relevant sections of the ACOEM PRACTICE GUIDELINES Knee Chapter Page 340 are cited below: "Activities and postures that

increase stress on a structurally damaged knee tend to aggravate symptoms. Patients with acute ligament tears, strains, or meniscus damage of the knee can often perform only limited squatting and working under load during the first few weeks after return to work. Patients with prepatellar bursitis should avoid kneeling. Patients with any type of knee injury or disorder will find prolonged standing and walking to be difficult, but return to modified-duty work is extremely desirable to maintain activities and prevent debilitation. A brace can be used for patellar instability, anterior cruciate ligament (ACL) tear, or medical collateral ligament (MCL) instability although its benefits may be more emotional (i.e., increasing the patient's confidence) than medical. Usually a brace is necessary only if the patient is going to be stressing the knee under load, such as climbing ladders or carrying boxes. For the average patient, using a brace is usually unnecessary. In all cases, braces need to be properly fitted and combined with a rehabilitation program."Official Disability Guidelines (ODG) Knee Chapter, Knee brace. 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. 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. 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. 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. 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. This study recommends the unloader (valgus) knee brace for pain reduction in patients with osteoarthritis of the medial compartment of the knee. 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. 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 knee osteoarthritis. They should be cautiously considered as conservative management for relief of pain and stiffness and improving physical function for persons with knee osteoarthritis. (Raja, 2011) The knee adduction moment has an integral role in the development and progression of knee OA. A number of conservative biomechanics-based interventions can reduce the knee adduction moment effectively via different mechanisms. Many of these conservative biomechanical strategies could be employed in early stage OA and might help to prevent and/or delay disease progression. Valgus knee braces secured around the thigh and lower leg and worn throughout the day are a conservative treatment strategy for patients with medial knee OA. The underlying rationale for use of a valgus knee brace is the application of a valgus moment (knee abduction moment) to the knee joint, which could reduce the knee adduction moment during walking and unload the medial compartment of the knee. Valgus knee braces reduce the net knee adduction moment during

walking in healthy young adults and in patients with medial knee OA. Pain is a symptom of knee joint OA, and a valgus knee brace substantially reduces pain immediately upon use, and after continuous wear for durations ranging between 2 weeks and 12 months. Improvements in function have also been reported in patients with OA following valgus knee bracing for durations of between 6 months and 12 months. Although valgus bracing achieves effective unloading of the medial compartment of the knee and offers potential for improving the clinical outcome in patients with knee OA, the success of this intervention relies upon the patient being prepared to wear the knee brace continually. Valgus knee braces are bulky, potentially uncomfortable and might not be a practical daily solution for many patients. Knee bracing after ACL reconstruction appears to be largely useless, according to a systematic review. Postoperative bracing did not protect against reinjury, decrease pain, or improve stability. Criteria for the use of knee braces include prefabricated knee braces may be appropriate in patients with one of the following conditions such as, knee instability, ligament insufficiency/deficiency, reconstructed ligaments, articular defect repair, avascular necrosis, meniscal cartilage repair, painful failed total knee arthroplasty, painful high tibial osteotomy painful unicompartmental osteoarthritis, tibial plateau fracture. Custom-fabricated knee braces may be appropriate for patients with the following conditions which may preclude the use of a prefabricated model: 1. Abnormal limb contour, such as valgus [knock-kneed] limb, varus [bow-legged] limb, tibial, disproportionate thigh and calf (e.g., large thigh and small calf) and minimal muscle mass on which to suspend a brace. 2. Skin changes, such as excessive redundant soft skin thin skin with risk of breakdown (e.g., chronic steroid use), severe osteoarthritis (grade III or IV), maximal off-loading of painful or repaired knee compartment (example: heavy patient; significant pain) and severe instability as noted on physical examination of knee. In the case of this injured worker, the knee examination from a note dated 7/7/2014, indicates there is tenderness on the left knee with range of motion from 0-120 degrees. The patient has a positive patellar compression test on the right. None of the conditions that warrant knee bracing such as instability is documented in the submitted medical records. Given this, the request for a knee brace is not medically necessary.