

Case Number:	CM14-0156248		
Date Assigned:	09/29/2014	Date of Injury:	06/06/2004
Decision Date:	01/29/2015	UR Denial Date:	08/25/2014
Priority:	Standard	Application Received:	09/24/2014

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 Rehab, has a subspecialty in Pain Medicine 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 41 year old female who reported an industrial injury on 06/06/2004. The submitted documentation did not include a clinical history of the occurrence. Diagnosis includes ACL reconstruction x 3 with macrotrauma after each repair, post traumatic degenerative joint disease (DJD) with pain, osteoarthritis localized primary involving lower leg, and sprain of cruciate ligament of the knee. Treating physician's examination notes dated 07/22/2014 stated the injured worker complained of her right knee popping and symptoms had increased recently. She also had noted ankle swelling and pain. Right knee examination showed mild effusion, no erythema, tenderness diffusely. Range of motion was 0 to 70 degrees of flexion, positive anterior drawer sign, and soft endpoint on Lachman testing. Her skin was intact and had a negative McMurray's. Treatment plan included medication, Ibuprofen 800mg and Norco 325mg-10mg, a new brace due to weight loss and the current one does not fit, and to continue H wave treatments. The request is for a defiance custom knee brace (right knee) for purchase that a Utilization Review denied on 08/25/2014 because the records submitted did not reveal an updated examination of the affected knee with indications of specific loss of range of motion, strength or presence of instability to support the medical necessity. CA MTUS ACOEM Guidelines and ODG Guidelines were utilized in the decision making.

IMR ISSUES, DECISIONS AND RATIONALES

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

Defiance Custom Knee Brace, Right Knee for Purchase: Overturned

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

MAXIMUS guideline: Decision based on MTUS ACOEM Chapter 13 Knee Complaints Page(s): 340. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG) Knee Chapter, Knee brace

Decision rationale: The ACOEM Practice Guidelines, Knee Complaints Chapter Page 340 state the following: "Activities and postures that increase stress on a structurally damaged knee tends 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." Further guidelines can be found in Official Disability Guidelines (ODG) Knee Chapter, Knee brace topic, which states the following: "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 co-contraction, and knee adduction excursions. Pain relief may result from diminished muscle co-contractions 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 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. (Reeves, 2011) Knee bracing after ACL reconstruction appears to be largely useless, according to a systematic review. Postoperative bracing did not protect against re-injury, decrease pain, or improve stability. (Kruse, 2012) Criteria for the use of knee braces: Prefabricated knee braces may be appropriate in patients with one of the following conditions: 1. Knee instability 2. Ligament insufficiency/deficiency 3. Reconstructed ligament 4. Articular defect repair 5. Avascular necrosis 6. Meniscal cartilage repair 7. Painful failed total knee arthroplasty 8. Painful high tibial osteotomy 9. Painful unicompartmental osteoarthritis 10. 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: a. Valgus [knock-kneed] limb b. Varus [bow-legged] limb c. Tibial varum d. Disproportionate thigh and calf (e.g., large thigh and small calf) e. Minimal muscle mass on which to suspend a brace 2. Skin changes, such as: a. Excessive redundant soft skin b. Thin skin with risk of breakdown (e.g., chronic steroid use) 3. Severe osteoarthritis (grade III or IV) 4. Maximal off-loading of painful or repaired knee compartment (example: heavy patient; significant pain) 5. Severe instability as noted on physical examination of knee" In the case of this injured worker, there is documentation in a progress note from July 22, 2014 that there is chronic right knee instability. This injured worker has had previous ACL reconstruction with documentation of macro trauma after each of her three repairs. The progress note from this same date documents positive anterior drawer sign. There is documentation that a new brace is needed as the patient

has had weight loss and the old brace does not fit. The ODG do have provision for custom fabricated knee braces in situations of severe instabilities such as in this patient. Therefore this request is medically necessary.