Case Number:	CM15-0118884		
Date Assigned:	06/29/2015	**Date of Injury:**	05/29/2000
Decision Date:	08/06/2015	**UR Denial Date:**	05/21/2015
Priority:	Standard	**Application Received:**	06/19/2015

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. 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/Service. He/she is familiar with governing laws and regulations, including the strength of evidence hierarchy that applies to Independent Medical Review determinations.

The Expert Reviewer has the following credentials:
State(s) of Licensure: New Jersey, Alabama, California
Certification(s)/Specialty: Neurology, Neuromuscular Medicine

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 (IW) is a 45-year-old male who sustained an industrial injury on 05/29/2000. Diagnoses include acute venous embolism and thrombosis of deep vessels of the lower extremity. Treatment to date has included aspirin, leg elevation and moist heat application. According to the progress notes dated 5/11/15, the IW reported increased pain and tenderness in the left lower leg. A venous Doppler study found a thrombus in the left peroneal vein; the IW was taking aspirin for this condition since it was noted on the previous Doppler study. The IW was status post left knee arthroscopy performed on 3/13/15. On examination, the left lower leg was extremely symptomatic, very tender and painful. The IW withdrew his leg each time palpation of the calf was attempted. The IW walked with crutches. The treating provider recommended a one-time visit with a general surgeon for evaluation of the superficial thrombophlebitis. A request was made for an MRI of the left calf (lower leg) for submitted diagnosis of deep vein thrombosis as an outpatient.

IMR ISSUES, DECISIONS AND RATIONALES

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

MRI of the left calf (lower leg) for submitted diagnosis of deep vein thrombosis as an outpatient: Upheld

Claims Administrator guideline: Decision based on MTUS Chronic Pain Treatment Guidelines. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG), Knee and Leg Section.

MAXIMUS guideline: The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation MRIs (magnetic resonance imaging) http://www.odg-twc.com/index.html.

Decision rationale: According to ODG guidelines, MRI is "Recommended as indicated below. Soft-tissue injuries (meniscal, chondral surface injuries, and ligamentous disruption) are best evaluated by MRI. (ACR, 2001) See also ACR Appropriateness Criteria: Diagnostic performance of MR imaging of the menisci and cruciate ligaments of the knee is different according to lesion type and is influenced by various study design characteristics. Higher magnetic field strength modestly improves diagnostic performance, but a significant effect was demonstrated only for anterior cruciate ligament tears. (Pavlov, 2000) (Oei, 2003) A systematic review of prospective cohort studies comparing MRI and clinical examination to arthroscopy to diagnose meniscus tears concluded that MRI is useful, but should be reserved for situations in which further information is required for a diagnosis, and indications for arthroscopy should be therapeutic, not diagnostic in nature. (Ryzewicz, 2007) This study concluded that, in patients with nonacute knee symptoms who are highly suspected clinically of having intra-articular knee abnormality, magnetic resonance imaging should be performed to exclude the need for arthroscopy. (Vincken, 2007) In most cases, diagnosing osteoarthritis with an MRI is both unnecessary and costly. Although weight-bearing X-rays are sufficient to diagnose osteoarthritis of the knee, referring physicians and some orthopaedic surgeons sometimes use magnetic resonance imaging (MRI) either with or instead of weight bearing X-rays for diagnosis. For total knee arthroplasty (TKA) patients, about 95% to 98% of the time they don't need an MRI. Osteoarthritis patients often expect to be diagnosed with MRIs, and this demand influences MRI use. Average worker's compensation reimbursement is also higher for the knee MRI ([redacted]) than for the knee X-rays ([redacted]). (Goldstein, 2008) Repeat MRIs are recommended if need to assess knee cartilage repair tissue. In determining whether the repair tissue was of good or poor quality, MRI had a sensitivity of 80% and specificity of 82% using arthroscopy as the standard. (Ramappa, 2007) MRI scans are accurate to diagnose meniscus tears, but MRI is a poor predictor of whether or not the tear can be repaired. Surgeons cannot tell whether the tear will be reparable until the surgery is underway, and it affects recovery because repaired meniscus tears have a more involved recovery compared with surgical removal of the tissue. (Bernthal, 2010) In this case series, in more than half of patients who had an MRI at the request of their referring physician, the MRI was not necessary. MRI was considered unnecessary if: X-rays alone could establish the diagnosis, patellofemoral pain with a normal ligamentous and meniscal exam, the knee pain resolved before seeing an orthopedic surgeon, or the MRI findings had no effect on treatment outcome. MRI studies were deemed necessary if they were indicated by history and/or physical examination to assess for meniscal, ligamentous, or osteochondral injury or osteonecrosis, or if the patient had an unexpected finding that affected treatment. (Khanuja, 2011) Routine use of MRI for follow-up of asymptomatic patients following knee arthroplasty is not recommended, but may be appropriate for pain after TKA with a negative radiograph for loosening and low probability of infection. (Weissman, 2011) MRI of knees with no radiographic evidence of osteoarthritis are still likely to identify structural lesions associated with osteoarthritis (ie, osteophytes, cartilage damage, bone marrow lesions). (Guermazi, 2012) Indications for imaging MRI (magnetic resonance imaging): Acute trauma to the knee, including significant trauma (e.g, motor vehicle accident), or if suspect posterior knee dislocation or ligament or cartilage disruption. Nontraumatic knee pain, child or adolescent: nonpatellofemoral symptoms. Initial anteroposterior and lateral radiographs nondiagnostic (demonstrate normal

findings or a joint eff usion) next study if clinically indicated. If additional study is needed. Nontraumatic knee pain, child or adult. Patellofemoral (anterior) symptoms. Initial anteroposterior, lateral, and axial radiographs nondiagnostic (demonstrate normal findings or a joint effusion). If additional imaging is necessary, and if internal derangement is suspected. Nontraumatic knee pain, adult. Non-trauma, non-tumor, non-localized pain. Initial anteroposterior and lateral radiographs nondiagnostic (demonstrate normal findings or a joint effusion). If additional studies are indicated, and if internal derangement is suspected. Nontraumatic knee pain, adult - nontrauma, nontumor, nonlocalized pain. Initial anteroposterior and lateral radiographs demonstrate evidence of internal derangement (e.g., Peligrini Stieda disease, joint compartment widening). Repeat MRIs: Post-surgical if need to assess knee cartilage repair tissue. (Ramappa, 2007) Routine use of MRI for follow-up of asymptomatic patients following knee arthroplasty is not recommended. (Weissman, 2011)". The provider requested an MRI of the lower leg to diagnosis DVT. MRI is not the gold standard test to diagnosis DVT, leg ultrasound is more appropriate. In addition, the provider requested an MRI as an outpatient. The diagnosis of DVT is an emergency because of the risk of complication with life-threatening pulmonary embolis. Any diagnostic procedure for a DVT should be performed immediately after suspecting the diagnosis and should not be scheduled as a routine procedure. In addition, ODG guidelines do not recommend the use of MRI for the diagnosis of DVT. Therefore, the request for MRI of the left calf (lower leg) for submitted diagnosis of deep vein thrombosis as an outpatient is not medically necessary.