Case Number:	CM15-0070912		
Date Assigned:	04/20/2015	**Date of Injury:**	04/02/2014
Decision Date:	05/19/2015	**UR Denial Date:**	03/30/2015
Priority:	Standard	**Application Received:**	04/14/2015

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 is a 38 year old male, who sustained an industrial injury on 4/2/2014. The current diagnosis is pain in joint, lower leg. According to the progress report dated 3/20/2015, the injured worker complains of chronic bilateral knee pain, right greater than left. The pain is rated 5/10 on a subjective pain scale. Additionally, he notes that he is having some depressive symptoms that have been gradually worsening. The current medications are Naproxen, Diclofenac, Protonix, and Orphenadrine. Treatment to date has included medication management, MRI studies, and physical therapy. The plan of care includes cortisone injection to the right knee.

IMR ISSUES, DECISIONS AND RATIONALES

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

Cortisone injection, right knee: Upheld

Claims Administrator guideline: Decision based on MTUS ACOEM Chapter 13 Knee Complaints.

MAXIMUS guideline: The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Corticosteroid injections. http://www.odg-twc.com/index.html.

Decision rationale: According to ODG guidelines, knee injection, "Recommended for short-term use only. Intra-articular corticosteroid injection results in clinically and statistically significant reduction in osteoarthritic knee pain 1 week after injection. The beneficial effect could last for 3 to 4 weeks, but is unlikely to continue beyond that. Evidence supports short-term (up to two weeks) improvement in symptoms of osteoarthritis of the knee after intra-articular corticosteroid injection. The number of injections should be limited to three. (Leopold, 2003) (Arroll-BMJ, 2004) (Godwin, 2004). The short-term benefit of intra-articular (IA) corticosteroids in treatment of knee osteoarthritis is well established, and few side effects have been reported. Longer-term benefits have not been confirmed. Intra-articular corticosteroid injections help to relieve pain and reduce swelling in osteoarthritis of the knee and typically yield improvement within 24 hours that lasts 4 to 8 weeks. Repeated injections to the knee may not accelerate disease progression for osteoarthritis. (Stephens, 2008) A meta-analysis of clinical trials concluded that, from baseline to week 4, intra-articular corticosteroids appear to be relatively more effective for pain than intra-articular hyaluronic acid, but by week 4, the 2 approaches have equal efficacy, and beyond week 8, hyaluronic acid has greater efficacy (Bannuru, 2009). This study demonstrates the potential chondrotoxicity associated with intra-articular bupivacaine use in arthritic knee joints, particularly when given with a corticosteroid. Although these findings seem to be subtle and are probably subclinical after just 1 injection, they indicate the possible spectrum of iatrogenic injury that may be caused by repeated injections of local anesthetics commonly used to treat articular pain. (Chu, 2010) Although there are several corticosteroid compounds available for use in the IA injection of the knee joint, there is scant comparative data for the compounds, although there appears to be a tendency for trimacinolone to be the most efficacious compound. There is no evidence to suggest that doses other than those recommended by the manufacturers for each compound should be administered. There is too little experimental or observational data to draw any conclusions as to an optimal frequency of IA corticosteroid injection, and current usage patterns are determined by practitioner opinion. Finally, IA injection of corticosteroid is a treatment adjunct and should not be used as monotherapy for patients with chronic, stable OA. (Douglas, 2012) This systematic review looking for predictors of response from intra-articular steroid injections in knee osteoarthritis suggested that absence of synovitis, presence of effusion, and withdrawal of fluid from the knee were all predictive of a better response. Increasing efficacy was also associated with increasing severity of radiographic degeneration and increasing severity of pain, stiffness, and loss of function. Duration of symptoms was not associated with response (Maricar, 2013). An AHRQ meta-analysis of 137 studies with 33,243 participants concludes that hyaluronic acid was the best pharmacologic intervention for knee osteoarthritis, with an effect size of 0.63. For relieving pain, injections were more effective than oral treatments, and placebo injections were more effective than oral NSAIDs. The apparent superiority of intraarticular treatments may not reflect a placebo effect but, instead, relief from injecting any fluid into the joint space. For function, all interventions except injected corticosteroids were better than oral placebo. Hyaluronic acid was better than injected placebo or injected corticosteroids (Bannuru, 2015). Imaging guidance for knee joint injections: In the knee, conventional anatomical guidance by an experienced clinician is generally adequate. Criteria for Intraarticular glucocorticosteroid injections: Documented symptomatic severe osteoarthritis of the knee according to American College of Rheumatology (ACR) criteria, which requires knee pain and at least 5 of the following: (1) Bony enlargement; (2) Bony tenderness; (3) Crepitus (noisy, grating sound) on active motion; (4) Erythrocyte

sedimentation rate (ESR) less than 40 mm/hr; (5) Less than 30 minutes of morning stiffness; (6) No palpable warmth of synovium; (7) Over 50 years of age; (8) Rheumatoid factor less than 1:40 titer (agglutination method); (9) Synovial fluid signs (clear fluid of normal viscosity and WBC less than 2000/mm3); Not controlled adequately by recommended conservative treatments (exercise, NSAIDs or acetaminophen); Pain interferes with functional activities (e.g., ambulation, prolonged standing) and not attributed to other forms of joint disease; Intended for short-term control of symptoms to resume conservative medical management or delay TKA; Generally performed without fluoroscopic or ultrasound guidance; Absence of synovitis, presence of effusion preferred (not required); Aspiration of effusions preferred (not required); Only one injection should be scheduled to start, rather than a series of three; A second injection is not recommended if the first has resulted in complete resolution of symptoms, or if there has been no response; With several weeks of temporary, partial resolution of symptoms, and then worsening pain and function, a repeat steroid injection may be an option; The number of injections should be limited to three. There is no documentation that the patient developed severe osteoarthritis or any of the conditions mentioned above. There is no documentation that the pain is causing limitation of the patient functional activity and activity of daily living. Therefore, the request for Cortisone injection, right knee is not medically necessary.