

<b>Case Number:</b>	CM15-0160782		
<b>Date Assigned:</b>	08/27/2015	<b>Date of Injury:</b>	03/30/1993
<b>Decision Date:</b>	09/29/2015	<b>UR Denial Date:</b>	07/19/2015
<b>Priority:</b>	Standard	<b>Application Received:</b>	08/17/2015

### 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: Illinois, California, Texas  
 Certification(s)/Specialty: Orthopedic Surgery

### CLINICAL CASE SUMMARY

The expert reviewer developed the following clinical case summary based on a review of the case file, including all medical records:

This injured worker is a 66-year-old male who sustained an industrial injury on 3/30/93. The mechanism of injury was not documented. Past surgical history was positive for right total knee arthroplasty. The 4/3/15 treating physician report cited progressive right knee pain associated with weight bearing activities. He was using a cane full time. He did not have fevers or chills. The injured worker was using a cane for ambulation. Right knee exam documented a well healed surgical scar, flexion contracture with a 15 degree extension lag, flexion to 100 degrees, pain with deep flexion and resisted knee extension, and decreased extension strength. The diagnosis included failed and infected total knee arthroplasty. Aspiration of the right knee was performed. X-rays demonstrated circumferential radiolucency under the tibial tray, with anterior, lateral and posterior lysis. There was also lysis in the femoral condyles especially in the anterior chamber. The 6/1/15 treating physician report indicated that the injured worker had a culture-negative total knee infection with elevated white count of aspirate, and high C-reactive protein, and sedimentation rate. The treatment plan recommended proceeding with a two-stage revision total knee arthroplasty. The initial procedure would be a resection arthroplasty in a dynamic versus static spacer. The injured worker underwent a right knee resection arthroplasty and revision total knee arthroplasty with hemipatellectomy on 6/10/15. Operative findings documented loose tibia, loose femur and bursal tissue within the knee. There was no gross purulence but cloudy fluid and a fibrous membrane between the femoral component and the bone, the tibial component and the bone with tissue that seemed to be infected grossly. The 7/14/15 lab work documented an elevated creatinine and glucose, and low glomerular filtration. The white blood count was within

normal limits. Records indicated that the injured worker was being treated with IV vancomycin. Authorization was requested for the second stage of a right revision total knee arthroplasty, pre-operative medical clearance, and post-op lab testing including complete blood count (CBC) with electrolytes, C-reactive protein and sedimentation rate. The 7/19/15 utilization review non-certified the right revision total knee arthroplasty and associated pre-operative medical clearance as there was no evidence that the infection had been eradicated so the request was pre-mature. The request for post-op lab testing including complete blood count (CBC) with electrolytes, C-reactive protein and sedimentation rate was modified to CBC, C-reactive protein and sedimentation rate as the request for electrolytes was unrelated to the monitoring of an infection and the rationale for requesting this study was not stated. The 8/28/15 treating physician request indicated the patient had been diagnosed with an infected right total knee arthroplasty, with apparent absence of infection.

### **IMR ISSUES, DECISIONS AND RATIONALES**

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

#### **Right revision total knee arthroplasty: 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, Revision total 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) Knee and Leg: Revision total knee arthroplasty.

**Decision rationale:** The California MTUS does not provide recommendations for revision total knee arthroplasty. The Official Disability Guidelines recommend revision total knee arthroplasty for failed knee replacement when surgical indications are met. Criteria include recurrent disabling pain, stiffness and functional limitation that have not responded to appropriate conservative nonsurgical management (exercise and physical therapy), fracture or dislocation of the patella, component instability or aseptic loosening, infection, or periprosthetic fractures. Guideline criteria have been met. This injured worker presented with persistent weight bearing right knee pain. Aspiration and lab testing confirmed the presence of infection. He underwent stage 1 of a two stage right revision total knee arthroplasty on 6/10/15 with surgical findings of loosed tibia and femur with infection. He was placed on IV Vancomycin with follow-up aspirations and lab work. Records indicate that the infection has cleared and the surgeon is ready to proceed to the second stage of revision. Therefore, this request is medically necessary.

#### **Pre-operative medical clearance: Overturned**

**Claims Administrator guideline:** The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation Surgery General Information and Ground Rules, California Official Medical Fee Schedule, 1999 edition, pages 92-93.

**MAXIMUS guideline:** The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Institute for Clinical Systems Improvement (ICSI). Preoperative evaluation. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2010 Jun. 40 p.

**Decision rationale:** The California MTUS guidelines do not provide recommendations for pre-operative medical clearance. Evidence based medical guidelines indicate that a basic pre-operative assessment is required for all patients undergoing diagnostic or therapeutic procedures. Middle-aged males have known occult increased medical/cardiac risk factors. Records indicated lab studies suggestive of renal damage (elevated creatinine, low GFR). Guideline criteria have been met based on patient age, potential comorbidities, magnitude of surgical procedure, recumbent position, fluid exchange and the risks of undergoing anesthesia. Therefore, this request is medically necessary.

**Post-operative testing lab: CBC with electrolytes:** Overturned

**Claims Administrator guideline:** The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation American Academy of Orthopaedic Surgeons (AAOS) Clinical practice guideline on the diagnosis of periprosthetic joint infections of the hip and knee.

**MAXIMUS guideline:** The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Practice advisory for pre-anesthesia evaluation: an updated report by the American Society of Anesthesiologists Task Force on Pre-anesthesia Evaluation. Anesthesiology 2012 Mar; 116 (3): 522-38.

**Decision rationale:** The California MTUS guidelines do not provide recommendations for this service. Evidence based medical guidelines indicate that most laboratory tests are not necessary for routine procedures unless a specific indication is present. Indications for such testing should be documented and based on medical records, patient interview, physical examination, and type and invasiveness of the planned procedure. Guidelines generally recommend that electrolyte testing be performed in patients with underlying chronic disease and those taking medications that predispose them to electrolyte abnormalities or renal failure. Guideline criteria have been met. Previous lab findings have been consistent with renal damage (elevated creatinine, low GFR) which would support electrolyte testing. Therefore, this request is medically necessary.