

<b>Case Number:</b>	CM15-0102871		
<b>Date Assigned:</b>	06/05/2015	<b>Date of Injury:</b>	10/18/2014
<b>Decision Date:</b>	07/07/2015	<b>UR Denial Date:</b>	05/06/2015
<b>Priority:</b>	Standard	<b>Application Received:</b>	05/28/2015

### 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 10/18/2014 after falling down two steps at work. He has reported subsequent right knee pain and low back pain and was diagnosed with lumbar strain/sprain, lumbar radiculopathy, other and unspecified derangement of medial meniscus and sprain/strain of cruciate ligament of knee. Treatment to date has included oral and topical pain medication, rest, ice and physical therapy. In a progress note dated 03/11/2015, the injured worker complained of right knee pain. Objective findings were notable for tenderness to palpation of the medial joint line of the right knee and positive McMurray's test. The physician noted that a right knee arthroscopy, ACL reconstruction and medial meniscectomy were recommended. A request for authorization of CPM unit 14-day rental was submitted.

### IMR ISSUES, DECISIONS AND RATIONALES

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

**CPM Unit for 14 days rental:** Upheld

**Claims Administrator guideline:** The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation ODG Knee & Leg.

**MAXIMUS guideline:** The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Knee Continuous passive motion (CPM). <http://www.odg-twc.com/index.html>.

**Decision rationale:** According to ODG guidelines, CPM "Recommended as indicated below, for in-hospital use, or for home use in patients at risk of a stiff knee, based on demonstrated compliance and measured improvements, but the beneficial effects over regular PT may be small. Routine home use of CPM has minimal benefit. Although research suggests that CPM should be implemented in the first rehabilitation phase after surgery, there is substantial debate about the duration of each session and the total period of CPM application. A Cochrane review on this topic concluded that short-term use of CPM leads to greater short-term range of motion. But in a recent RCT results indicated that routine use of prolonged CPM should be reconsidered, since neither long-term effects nor better functional performance was detected. The experimental group received CPM + PT in the home situation for 17 consecutive days after surgery, whereas the usual care group received the same treatment during the in-hospital phase (i.e. about four days), followed by PT alone (usual care) in the first two weeks after hospital discharge. (Lenssen, 2008) Continuous passive motion (CPM) combined with PT, may offer beneficial results compared to PT alone in the short-term rehabilitation following total knee arthroplasty. Results favoring CPM were found for the main comparison of CPM combined with physical therapy (PT) versus PT alone at end of treatment. For the primary outcomes of interest, CPM combined with PT was found to statistically significantly increase active knee flexion and decrease length of stay. CPM was also found to decrease the need for post-operative manipulation. CPM did not significantly improve passive knee flexion and passive or active knee extension. (Milne-Cochrane, 2003) (Kirschner, 2004) (Brosseau, 2004) (Bennett, 2005) (Lenssen, 2006) Continuous passive motion can stimulate chondrocyte production of proteoglycan 4 (PRG4), a molecule found in synovial fluid with putative lubricating and chondroprotective properties. (Nugent-Derfus, 2006) A recent Cochrane review concluded that there is high-quality evidence that continuous passive motion increases passive knee flexion range of motion (mean difference 2 degrees) and active knee flexion range of motion (mean difference 3 degrees), but that these effects are too small to be clinically worthwhile, and there is low-quality evidence that continuous passive motion has no effect on length of hospital stay but reduces the need for manipulation under anaesthesia. (Harvey, 2010) The adjunctive home use of CPM may be an effective treatment option for patients at risk of knee flexion contractures, regardless of whether the patient is being treated as part of a worker's compensation claim or not. Recent literature suggests that routine home use of CPM has minimal benefit when combined with standard physical therapy, but studies conducted in a controlled hospital setting suggest that CPM can improve rehabilitation. (Dempsey, 2010) Criteria for the use of continuous passive motion devices: In the acute hospital setting, postoperative use may be considered medically necessary, for 4-10 consecutive days (no more than 21), for the following surgical procedures: (1) Total knee arthroplasty (revision and primary). (2) Anterior cruciate ligament reconstruction (if inpatient care). (3) Open reduction and internal fixation of tibial plateau or distal femur fractures involving the knee joint (BlueCross BlueShield, 2005). For home use, up to 17 days after surgery while patients at risk of a stiff knee are immobile or unable to bear weight: (1) Under conditions of low postoperative mobility or inability to comply with rehabilitation exercises following a total knee arthroplasty or revision; this may include patients with: (a) complex regional pain syndrome; (b) extensive arthrofibrosis or tendon fibrosis; or (c) physical,

mental, or behavioral inability to participate in active physical therapy. (2) Revision total knee arthroplasty (TKA) would be a better indication than primary TKA, but either OK if #1 applies." Although the patient was diagnosed with right knee ACL and medial tear, there is no justification for 14 days CPM unless the patient is working as an inpatient. There is no documentation that the patient is at risk for stiff knee or any of the indications for CPM as per ODG guidelines. Therefore, the request for CPM Unit for 14 days rental is not medically necessary.