

Case Number:	CM14-0127502		
Date Assigned:	08/15/2014	Date of Injury:	04/22/2012
Decision Date:	10/14/2014	UR Denial Date:	07/29/2014
Priority:	Standard	Application Received:	08/12/2014

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 Family 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 patient is a 48 year-old male who was injured at work on 4/22/2012. The injury was primarily to his knees. He is requesting review of denial for the following: Retro Knee CPM X 4 Weeks/Additional Rental from 6/18/2014 to 7/15/2014 for the Bilateral Knees. Medical records corroborate ongoing care for his injuries. He underwent bilateral knee arthroplasty in 5/2014 for severe degenerative osteoarthritis. Post-operatively a consult was obtained from a Physical Medicine & Rehabilitation specialist. The plan was to start the patient on a rehabilitation program. He was discharged on 6/14/2014 and was noted to be ambulating and had reached his acute rehabilitation goals. When he was reassessed on 6/24/2014 he was having difficulty with full extension of his knees. He was described as being able to flex his knees and not having any difficulty with movement. A request was made for CPM machine X 6 weeks. This request was partially overturned and approved for a 21 day-rental.

IMR ISSUES, DECISIONS AND RATIONALES

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

Retro knee CPM X 4 week additional rental from 6/18/14 to 7/15/14 for the bilateral knees:
Upheld

Claims Administrator guideline: The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation ODG (Official Disability Guidelines) Knee and Leg regarding Continuous passive motion (CPM)

MAXIMUS guideline: The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG), Knee, Continuous Passive Motion (CPM).

Decision rationale: The Official Disability Guidelines (ODG) comment on the use of continuous passive motion (CPM) devices for the treatment of knee injuries. The ODG state that CPM is 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 neither reconsidered, since neither long-term effect 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 anesthesia. (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). The criteria of the use of CPM devices are as follows: 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. In this case, CPM was approved for 21 days, which meets the maximum

requirements

for the acute hospital setting and exceeds the maximum requirements for home use. There is no evidence that the patient has been unable to comply with rehabilitation exercises or has physical, mental, or behavioral inability to participate in active physical therapy. Therefore, there is no justification to support CPM beyond the ODG stated guidelines. Such as, Retro knee CPM X 4 week additional rental from 6/18/14 to 7/15/14 for the bilateral knees is not medically necessary.