The following Protocol contains medical necessity criteria that apply for this service. It is applicable to Medicare Advantage products unless separate Medicare Advantage criteria are indicated. If the criteria are not met, reimbursement will be denied and the patient cannot be billed. Preauthorization is required. Please note that payment for covered services is subject to eligibility and the limitations noted in the patient’s contract at the time the services are rendered.

Description
Continuous passive motion (CPM) devices are utilized to keep a joint in motion without patient assistance. CPM is being evaluated for treatment and postsurgical rehabilitation of the upper and lower limb joints and for a variety of musculoskeletal conditions.

Background
Physical therapy of joints following surgery focuses both on passive motion to restore mobility and active exercises to restore strength. While passive motion can be administered by a therapist, continuous passive motion (CPM) devices have also been used. CPM is thought to improve recovery by stimulating the healing of articular tissues and circulation of synovial fluid; reducing local edema; and preventing adhesions, joint stiffness or contractures, or cartilage degeneration. CPM has been most thoroughly investigated in the knee, particularly after total knee arthroplasty (TKA) or ligamentous or cartilage repair, but its acceptance in the knee joint has created interest in extrapolating this experience to other weight-bearing joints (i.e., hip, ankle, metatarsals) and non-weight-bearing joints (i.e., shoulder, elbow, metacarpals, and interphalangeal joints). Use of CPM in stroke and burn patients is also being explored.

The device moves the joint (e.g., flexion/extension), without patient assistance, continuously for extended periods of time, i.e., up to 24 hours/day. An electrical power unit is used to set the variable range of motion (ROM) and speed. The initial settings for ROM are based on a patient’s level of comfort and other factors that are assessed intraoperatively. The ROM is increased by three to five degrees per day, as tolerated. The speed and ROM can be varied, depending on joint stability. The use of the devices may be initiated in the immediate postoperative period and then continued at home for a variable period of time.

Related Protocols:
- Autologous Chondrocyte Implantation for Focal Articular Cartilage Lesions
- Autografts and Allografts in the Treatment of Focal Articular Cartilage Lesions

Corporate Medical Guideline
Use of continuous passive motion (CPM) in the home setting may be considered medically necessary as an adjunct to physical therapy in the following situations:
- Under conditions of low postoperative mobility or inability to comply with rehabilitation exercises following a total knee arthroplasty (TKA) or TKA revision. This may include patients with complex regional pain...
syndrome (reflex sympathetic dystrophy); extensive arthrofibrosis or tendon fibrosis; or physical, mental or behavioral inability to participate in active physical therapy.

- During the non-weight bearing rehabilitation period following intra-articular cartilage repair procedures of the knee (e.g., microfracture, osteochondral grafting, autologous chondrocyte implantation, treatment of osteochondritis dissecans, repair of tibial plateau fractures).

Use of CPM in the home setting for all other indications is considered not medically necessary.

**Policy Guideline**

Following total knee arthroplasty (TKA), continuous passive motion (CPM) in the home setting will be allowable for up to 17 days after surgery while patients are immobile or unable to bear weight.

Following intra-articular cartilage repair procedures of the knee, CPM in the home setting will be allowable for up to six weeks during non-weight bearing rehabilitation.

**Medicare Advantage**

CPM devices are devices medically necessary for patients who have received a total knee replacement. To qualify for coverage, use of the device must commence within two days following surgery. In addition, coverage is limited to that portion of the three-week period following surgery during which the device is used in the patient's home. There is insufficient evidence to justify coverage of these devices for longer periods of time or for other applications.

Services that are the subject of a clinical trial do not meet our Technology Assessment Protocol criteria and are considered investigational. For explanation of experimental and investigational, please refer to the Technology Assessment Protocol.

It is expected that only appropriate and medically necessary services will be rendered. We reserve the right to conduct prepayment and postpayment reviews to assess the medical appropriateness of the above-referenced procedures. Some of this Protocol may not pertain to the patients you provide care to, as it may relate to products that are not available in your geographic area.

**References**

We are not responsible for the continuing viability of web site addresses that may be listed in any references below.

1. Blue Cross and Blue Shield Association Technology Evaluation Center (TEC). Continuous Passive Motion as an Adjunct to Physical Therapy for Joint Rehabilitation. TEC Assessments 1997; Volume 12(Tab 20).


