**In January 2018, these codes were moved to Guideline Note 173.**

**CPT 27418 Anterior tibial tubercleplasty (eg, Maquet type procedure)**

**Last reviewed at HOSC in May 2011. Minutes indicate that the staff recommendation was accepted without significant discussion. HERC approved the recommendations without change.**

The Maquet procedure involves the tibial tubercle is brought forward (anteriorised) to bring the patella more anterior

There are 6 procedure CPT codes used for treatment of patellar subluxation.

|  |  |  |
| --- | --- | --- |
| **CPT code** | **Code Description** | **Line(s)** |
| 27418 | Anterior tibial tubercleplasty (eg, Maquet type procedure) | **448** INTERNAL DERANGEMENT OF KNEE AND LIGAMENTOUS DISRUPTIONS OF THE KNEE, GRADE II AND III  **618** CONGENITAL DEFORMITIES OF KNEE |
| 27420 | Reconstruction of dislocating patella (eg, Hauser type procedure) | **296** DEFORMITY/CLOSED DISLOCATION OF JOINT  **448**  **618** |
| 27422 | Reconstruction of dislocating patella with extensor realignment and/or muscle advancement or release (eg Campbell, Goldwaite type procedure) | **296**  **448**  **618** |
| 24724 | Reconstruction of dislocating patella with patellectomy | **296**  **379** CLOSED FRACTURE OF EXTREMITIES (EXCEPT TOES)  **448**  **618** |
| 27560 | Closed treatment of patellar dislocation, without anesthesia | **143** OPEN FRACTURE/DISLOCATION OF EXTREMITIES  **296** |
| 27562 | Closed treatment of patellar dislocation, with anesthesia | **143**  **296** |

Subluxing/chronically dislocating patella diagnoses:

| **ICD-9 Code** | **Code description** | **Line(s)** |
| --- | --- | --- |
| 717.89 | Other Internal Derangement of Knee, Other | **448** INTERNAL DERANGEMENT OF KNEE AND LIGAMENTOUS DISRUPTIONS OF THE KNEE, GRADE II AND III  **627** SPRAINS AND STRAINS OF ADJACENT MUSCLES AND JOINTS, MINOR |
| 718.29 | Pathological dislocation; Dislocation or Displacement of Joint, Not Recurrent and Not Current, Lower Leg; Fibula; Knee Joint; Patella; Tibia | **296** DEFORMITY/CLOSED DISLOCATION OF JOINT  **627** |
| 718.36 | Recurrent Dislocation of Joint, Lower Leg; Fibula; Knee Joint; Patella; Tibia | **296**  **627** |
| 836.3 | Dislocation of Patella (Kneecap), Closed | **296** |
| 836.4 | Dislocation of Patella (Kneecap), Open | **143** OPEN FRACTURE/DISLOCATION OF EXTREMITIES |

Evidence

1. **Colvin 2008, review**
   1. Good evidence for non-operative treatment as first line therapy (level of evidence: A)
   2. Repair of recurrent patellar instability should be done with either a reconstruction of the medial patellofemoral ligament or a distal patellar realignment. Reconstruction of the medial patellofemoral ligament can be performed in patients with recurrent instability, with or without trochlear dysplasia, who have a normal tibial tubercle-trochlear groove distance and a normal patellar height. Distal realignment procedures can be used in patients who have an increased tibial tubercle-trochlear groove distance or patella alta. A standard medialization of the tibial tubercle can be performed if there is a normal patellar height and trochlear anatomy and an increased tibial tubercle-trochlear groove distance. Distalization of the tubercle can be added if there is concomitant patella alta, and anteromedialization of the tubercle is performed if there is lateral and/or distal patellar facet chondrosis. To avoid overloading the patella, a tubercle osteotomy should not be performed if there is associated medial or proximal patellar chondrosis.
   3. The recent literature does not support the use of an isolated lateral release for the treatment of patellar instability.
   4. Most of the current surgical treatments for chronic patellar instability are based on Level-IV evidence
2. **Mulford 2007, review**
   1. Surgery should not be considered until non-operative treatment has failed and the recurrent nature of the disease has resulted in functional impairment. Non-operative treatment should consist of anti-inflammatory and analgesic medication in combination with physiotherapy and trial of taping.
   2. There is no evidence that surgical stabilisation of the patellofemoral joint decreases long-term degenerative change despite improving short term stability.
   3. Recommended surgical approaches
      1. Alignment or rotational osteotomy to the femur
      2. Trochleoplasty
      3. Tibial tubercle osteotomy
3. **Wheeless’ Textbook of Orthopaedics**
   1. Discussion of treatment for chronic patellar dislocation
   2. Maquet procedure included “for historical purposes only”
   3. High incidence of skin necrosis found with this procedure
   4. Literature cited regarding Maquet procedure
      1. Radin 1993. N=39 with osteoarthrosis. F/U 6.1 years. 7% major complication
      2. Bessett 1988. N=20 retrospective review. Mean f/u 29 months. 8 complications (40%)
      3. Schmid 1993. N=35 with osteoarthosis. 20% results fair to poor.
   5. Note: Hauser procedure also considered historical only—leads to higher incidence of degenerative joint disease
   6. Recommended procedure for treatment of patellar dislocation
      1. Fulkerson osteotomy

Other guidelines

1. From [www.MDguidelines.com](http://www.MDguidelines.com)
   1. Recommends non-operative treatment first, including active and/or passive therapy, bracing, therapeutic injection
   2. Recommend surgery for patients with fracture, recurrent subluxation or recurrent effusion, or symptoms not responsive to conservative therapy.
      1. Recommends a minimum of 4-6 months of conservative therapy prior to surgical consultation
      2. Recommends 25660, 27420, 27422, 27424, and 27560 for the treatment of the ICD-9 diagnoses listed above

Other policies

1. **Blue Cross/Blue Shield**
   1. Brief review of policies across various states appear to show that all of the procedures noted above are covered

Recommendations

1. Remove 27418 (Maquet procedure) from Lines 448 and 627
   1. Appear to have high level of complications
   2. Other procedures exist which are equally or more efficacious
   3. Appropriate ICD-9 codes missing from Line 448
2. Advise DMAP to add 27418 to the Excluded List