CLINICAL GUIDELINES

CMM-311 ~Knee Arthroplasty-Total and Partial

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eviCore healthcare Clinical Decision Support Tool Diagnostic Strategies:This tool addresses common symptoms and symptom complexes. Imaging requests for individuals with atypical symptoms or clinical presentations that are not specifically addressed will require physician review. Consultation with the referring physician, specialist and/or individual's Primary Care Physician (PCP) may provide additional insight.

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CMM-311.1 Definition

Knee arthroplasty is a surgical procedure, which attempts to reconstruct or replace a malformed or degenerated knee joint with internal hardware. Total knee arthroplasty (TKA) involves surgical reconstruction or replacement of the entire knee joint as a result of bicompartmental or tricompartmental involvement. Partial knee arthroplasty involves surgical reconstruction or replacement of one joint surface of the knee joint as a result of unicompartmental involvement. Total or partial knee revision involves surgical reconstruction or replacement due to failure or complications of previous knee arthroplasty.

The Modified Outerbridge Classification is a system that has been developed for judging articular cartilage injury to the knee. This system allows delineation of varying areas of chondral pathology, based on the qualitative appearance of the cartilage surface, and can assist in identifying those injuries that are suitable for repair techniques. The characterization of cartilage in this system is as follows:

- Grade I - Softening with swelling
- Grade II - Fragmentation and fissuring less than one square centimeter (1 cm^2)
- Grade III - Fragmentation and fissuring greater than one square centimeter (1 cm^2)
- Grade IV - Subchondral bone exposed.

The Kellgren-Lawrence Grading System is a radiographic grading system that has been developed for describing osteoarthritic changes to the knee. When used, the radiographic findings are typically reported within one of the following categories:

- Grade I – Doubtful narrowing of joint space and possible osteophytic lipping
- Grade II – Definite osteophytes and possible narrowing of joint space
- Grade III – Moderate multiple osteophytes, definite narrowing of joint space, some sclerosis, and possible deformity of bone contour
- Grade IV – Large osteophytes, marked narrowing of joint space, severe sclerosis, and definite deformity of bone contour.

Non-surgical care, with regard to the treatment of the knee, is defined as any non- surgical treatment, which has been demonstrated in the scientific literature as efficacious and/or is considered a standard of care in the treatment of knee pain. The types of treatment involved can include, but are not limited to: relative rest/activity modification, physiotherapy modalities, supervised therapeutic exercise, oral medications, bracing, and/or injections (steroid and/or viscosupplementation).

The UniSpacer is a small, kidney shaped insert made of cobalt chrome for patients with early stage osteoarthritis of the knee. The UniSpacer is said to treat isolated, moderate degeneration of the medial compartment (Grade III-IV chondromalacia) with no more than minimal degeneration (Grade I-II chondromalacia; no loss of joint space) in the lateral condyle or patellofemoral compartment. The proposed goals of UniSpacer surgery are to relieve pain and to improve joint stability by restoring ligament tension and normal knee alignment.

CMM-311.2 Indications and Non-Indications

Partial Knee Arthroplasty

Partial Knee Arthroplasty (Replacement): Partial (unicompartmental) knee arthroplasty is considered medically necessary when all of the following criteria have been met:

- Chronic, severe, disabling pain for at least 6 months in duration
- Loss of knee function which interferes with the ability to carry out age appropriate activities of daily living and/or demands of employment
- Unicompartmental degenerative arthritis (Kellgren- Lawrence Grade IV) with joint space narrowing on weight-bearing radiographs or Modified Outerbridge Classification Grade IV changes documented by arthroscopy
- Intact, stable ligaments, in particular the anterior cruciate ligament
- Knee arc of motion (full extension to full flexion) greater than 90º
- Failure of non-surgical management.

Partial (unicompartmental) knee arthroplasty is considered not medically necessary when any of the following criteria is present:

- Severe Grade III or IV patellofemoral joint arthritis (when unicompartmental arthroplasty to be performed is medial or lateral)
- Prior high tibial osteotomy
- Tibial or femoral shaft deformity
- Radiographic evidence of medial or lateral subluxation
- Flexion contracture greater than 15º
- Varus deformity greater than 15º or a valgus deformity greater than 20º
- Inflammatory arthropathy
- Active local or systemic infection
- Severe loss of musculature, neuromuscular compromise or vascular deficiency in the affected limb, rendering the procedure unjustifiable
- Osteoporosis or other osseous abnormalities which would make the likelihood of a poor outcome more probable
- Severe lack of collateral ligament integrity leading to joint instability.

Based on a lack of scientific evidence of efficacy and safety, bicompartmental knee arthroplasty and bi-unicompartmental knee arthroplasty as an alternative for total knee replacement is considered experimental, investigational or unproven.

Total Knee Arthroplasty

Total Knee Arthroplasty (Replacement) is considered medically necessary when all of the following criteria have been met:

- Chronic severe, disabling pain for at least 6 months in duration
- Loss of knee function which interferes with the ability to carry out age appropriate activities of daily living and/or demands of employment

- Presence of bicompartmental or tricompartmental degenerative arthritis (Kellgren-Lawrence Grade IV) with joint space narrowing on weight-bearing radiographs or Modified Outerbridge Classification Grade IV changes documented by arthroscopy
- Knee arc of motion greater than 50 º
- Failure of non-surgical management.

Total Knee Arthroplasty (replacement) is considered not medically necessary when any of the following criteria are present:

- Active local or systemic infection
- Severe loss of musculature, neuromuscular compromise or vascular deficiency in the affected limb, rendering the procedure unjustifiable
- Osteoporosis or other osseous abnormalities which would make the likelihood of a poor outcome more probable
- Joint instability due to a lack of collateral ligament integrity
- Greater than 30 degrees of fixed varus or valgus deformity.

Total Knee Revision

Total Knee Revision is considered medically necessary for an individual who has previously undergone a partial or total knee arthroplasty when ALL of the following criteria have been met:

- Chronic severe, disabling pain
- Loss of knee function which interferes with the ability to carry out age appropriate activities of daily living and/or demands of employment
- Presence of any of the following:
    - Fracture or dislocation of the patella
    - Instability of the components
    - Aseptic loosening
    - Infection
    - Periprosthetic fracture
    - Unexplained pain for greater than six (6) months unresponsive to non- surgical management.

Total Knee Revision is considered not medically necessary when any of the following criteria is present:

- Persistent infection
- Poor bone quality
- Limited quadriceps or extensor function
- Poor skin coverage
- Poor vascular status.

UniSpacer

Based on a lack of scientific evidence of efficacy and safety, the use of the UniSpacer-device is considered experimental, investigational or unproven

CMM-311.3 Procedure (CPT®) Codes

This guideline relates to the CPT® code set below. Codes are displayed for informational purposes only.
Any given code's inclusion on this list does not necessarily indicate prior authorization is

CPT®	Code Description/Definition
27437	Arthroplasty, patella; without prosthesis
27438	Arthroplasty, patella; with prosthesis
27440	Arthroplasty, knee, tibial plateau
27441	Arthroplasty, knee, tibial plateau; with debridement and partial synovectomy
27442	Arthroplasty, femoral condyles or tibial plateau(s), knee
27443	Arthroplasty, femoral condyles or tibial plateau(s), knee; with debridement and partial synovectomy
27445	Arthroplasty, knee, hinge prosthesis (e.g. Walldius type)
27446	Arthroplasty, knee, condyle and plateau; medial OR lateral compartment
27447	Arthroplasty, knee, condyle and plateau; medical AND lateral compartments with or without patella resurfacing (total knee Arthroplasty)
27486	Revision of total knee Arthroplasty, with or without allograft; 1 component
27487	Revision of total knee Arthroplasty, with or without allograft; femoral and entire tibial component
27488	Removal of prosthesis, including total knee prosthesis, methylmethacrylate with or without insertion of spacer, knee
27580	Arthrodesis, knee, any technique

This list may not be all inclusive and is not intended to be used for coding/billing purposes. The final determination of reimbursement for services is the decision of the health plan and is based on the individual's policy or benefit entitlement structure as well as claims processing rules.

CMM-311.4 References

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