

Evidence Discussion (CMM-311: Knee Replacement/Arthroplasty)

Risks of knee arthroplasty include, but are not limited to infection, arthrofibrosis, loosening, periprosthetic fracture, deep vein thrombosis, pulmonary embolus, and cardiovascular events. Poorly selected patients have been shown to not predictably benefit from arthroplasty but are exposed to these potentially significant risks.[7,13]. Numerous studies have demonstrated that in appropriately selected individuals, arthroplasty will decrease pain, increase function, and improve quality of life.[1, 2, 3]. In order to ensure that arthroplasty is performed for the correct candidate, supportive symptoms, physical exam findings and imaging findings should be present. [5, 11] The American Academy of Orthopaedic Surgeons (AAOS) has developed Clinical Practice Guidelines and Appropriate Use Criteria for the management of osteoarthritis of the knee to guide both nonsurgical and surgical treatment and provide risk assessment tools to help ensure patients receive treatment that is appropriate, safe and effective. [17, 18] Conservative treatment is recommended by the AAOS Appropriate Use Criteria (AUC) for the Management of Osteoarthritis of the Knee for multiple clinical scenarios. [17] Treatment recommendations in the AAOS AUC are based on multiple variables including but not limited to function limiting pain frequency/predictability and radiographic severity of osteoarthritis. [17]

Partial knee arthroplasty has proven to be very successful in isolated unicompartmental non-inflammatory arthritis and results in improved function, decreased pain, and improved quality of life in properly selected patients. Proper selection criteria including radiographic findings (isolated, unicompartmental, severe unicompartmental arthritis), preoperative stability, ROM evaluation, and functional disability ensure predictable favorable outcomes. Excessive flexion contractures or severe malalignment are contraindications to successful partial knee replacement.[6, 9]

Revision knee arthroplasty of total knee arthroplasty or partial knee arthroplasty is indicated in situations of failed total and partial knee replacement for failed or loose prosthesis, periprosthetic infection, postoperative instability, and progression of arthritis in partial knee replacements.[12]

Due to unpredictable results arthroscopic or open abrasion arthroplasty procedures of the knee tibial plateau(s), patella, and/or femoral condyle(s), with or without debridement and partial synovectomy are considered not medically necessary for the treatment of symptomatic knee arthritis. [15, 16]

Although the use of any coverage criteria includes the possible risk of delayed or reduced care, EviCore firmly believes the benefits of our evidence based criteria best ensure patient safety and highly outweigh any clinical harms.

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