2016 Procedures Criteria

PATIENT:	Name	DOB	ID#	GROUP#
	Facility		Service Date	
PROVIDER:	Name		Fax#	Phone#
	Signature		Date	NPI/ID#

ICD-9:
ICD-10:
CPT®:

Subset: Total Joint Replacement (TJR), Knee[1, 2, 3, 4, 5, 6, 7, 8]
Requested Service: Total Joint Replacement (TJR), Knee
Age: Age ≥ 18

INSTRUCTIONS: Choose one of the following options and continue to the appropriate section

☐ 10. Avascular necrosis (osteonecrosis), tibial plateau or femoral condyle
☐ 20. Bone tumor involving knee by imaging
☐ 30. Nonunion or malunion, articular fracture
☐ 40. Osteoarthritis or posttraumatic arthritis
☐ 50. Rheumatoid arthritis

☐ 10. Avascular necrosis (osteonecrosis), tibial plateau or femoral condyle

1. Choose all that apply:
   - ☐ A) Pain increased with initiation of activity
   - ☐ B) Pain increased with weight bearing
   - ☐ C) Pain interferes with ADLs
   - ☐ D) Pain with ROM[9]
   - ☐ E) Other clinical information (add comment)

   - If 2 or more options A, B, C or D selected and option E not selected, then go to question 2
   - No other options lead to the requested service

2. Choose all that apply:
   - ☐ A) Limited ROM
   - ☐ B) Crepitus[10]
   - ☐ C) Joint effusion or swelling[11]
   - ☐ D) Other clinical information (add comment)

☐ 10. Avascular necrosis (osteonecrosis), tibial plateau or femoral condyle ***(Continued...)***

- If 2 or more options A, B or C selected and option D not selected, then go to question 3
- No other options lead to the requested service

3. Avascular necrosis by imaging

☐ Yes

☐ No

- If option Yes selected, then go to question 4
- No other options lead to the requested service

4. Collapse of tibial plateau or femoral condyle

☐ Yes

☐ No

- If option Yes selected, then go to question 5
- If option No selected, then go to question 6

5. Active infection[12]

☐ Yes

☐ No

- If option No selected, then the rule is satisfied; you may stop here ***(Inpatient)***
- No other options lead to the requested service

6. Treatment within last year, Choose all that apply:[13]

☐ A) NSAIDs or acetaminophen ≥ 3 weeks[14]

☐ B) PT or home exercise ≥ 12 weeks[15]

☐ C) Activity modification ≥ 12 weeks

☐ D) Other clinical information (add comment)

- If the number of options selected is 3 and option D not selected, then go to question 7
- No other options lead to the requested service

7. Choose all that apply:

☐ A) Continued symptoms or findings after treatment

☐ B) No active infection[12]

☐ C) Other clinical information (add comment)

- If the number of options selected is 2 and option C not selected, then the rule is satisfied; you may stop here ***(Inpatient)***
- No other options lead to the requested service

Total Joint Replacement (TJR), Knee

☐ **20. Bone tumor involving knee by imaging**

1. Active infection[12]

☐ Yes

☐ No

- If option No selected, then the rule is satisfied; you may stop here ***(Inpatient)***
- No other options lead to the requested service

☐ **30. Nonunion or malunion, articular fracture**

1. Choose all that apply:

☐ A) Symptomatic nonunion or malunion of fracture

☐ B) No active infection[12]

☐ C) Other clinical information (add comment)

- If the number of options selected is 2 and option C not selected, then the rule is satisfied; you may stop here ***(Inpatient)***
- No other options lead to the requested service

☐ **40. Osteoarthritis or posttraumatic arthritis**

1. Choose all that apply:

☐ A) Pain increased with initiation of activity

☐ B) Pain increased with weight bearing

☐ C) Pain interferes with ADLs

☐ D) Pain with ROM[9]

☐ E) Other clinical information (add comment)

- If 2 or more options A, B, C or D selected and option E not selected, then go to question 2
- No other options lead to the requested service

2. Choose all that apply:

☐ A) Limited ROM

☐ B) Crepitus[10]

☐ C) Joint effusion or swelling[11]

☐ D) Other clinical information (add comment)

- If 2 or more options A, B or C selected and option D not selected, then go to question 3
- No other options lead to the requested service

3. Bone-on-bone contact by imaging[16]

☐ Yes

☐ No

☐ 40. Osteoarthritis or posttraumatic arthritis ***(Continued...)***

- If option Yes selected, then go to question 4
- If option No selected, then go to question 5

4. Active infection[12]

☐ Yes

☐ No

- If option No selected, then the rule is satisfied; you may stop here ***(Inpatient)***
- No other options lead to the requested service

5. Arthritis by imaging, Choose all that apply:[17]

☐ A) Subchondral cysts

☐ B) Subchondral sclerosis

☐ C) Periarticular osteophytes

☐ D) Joint subluxation

☐ E) Joint space narrowing

☐ F) Other clinical information (add comment)

- If 2 or more options A, B, C, D or E selected and option F not selected, then go to question 6
- No other options lead to the requested service

6. Treatment within last year, Choose all that apply:[18, 19]

☐ A) NSAIDs or acetaminophen ≥ 3 weeks[20]

☐ B) PT or home exercise ≥ 12 weeks[21, 15]

☐ C) Activity modification ≥ 12 weeks

☐ D) Other clinical information (add comment)

- If the number of options selected is 3 and option D not selected, then go to question 7
- No other options lead to the requested service

7. Choose all that apply:

☐ A) Continued symptoms or findings after treatment

☐ B) No active infection[12]

☐ C) Other clinical information (add comment)

- If the number of options selected is 2 and option C not selected, then the rule is satisfied; you may stop here ***(Inpatient)***
- No other options lead to the requested service

☐ **50. Rheumatoid arthritis**

1. Choose all that apply:

☐ 50. Rheumatoid arthritis ***(Continued...)***

- ☐ A) Pain increased with initiation of activity
- ☐ B) Pain increased with weight bearing
- ☐ C) Pain interferes with ADLs
- ☐ D) Pain with ROM[9]
- ☐ E) Pain at night
- ☐ F) Other clinical information (add comment)

- If 2 or more options A, B, C, D or E selected and option F not selected, then go to question 2
- No other options lead to the requested service

2. Choose all that apply:

- ☐ A) Limited ROM
- ☐ B) Crepitus[10]
- ☐ C) Joint effusion or swelling[11]
- ☐ D) Other clinical information (add comment)

- If 2 or more options A, B or C selected and option D not selected, then go to question 3
- No other options lead to the requested service

3. Arthritis at knee by imaging, Choose all that apply:

- ☐ A) Subchondral cysts
- ☐ B) Marginal erosions
- ☐ C) Periarticular osteopenia
- ☐ D) Joint space narrowing
- ☐ E) Joint subluxation
- ☐ F) Other clinical information (add comment)

- If 2 or more options A, B, C, D or E selected and option F not selected, then go to question 4
- No other options lead to the requested service

4. Treatment within last year, Choose all that apply:[13]

- ☐ A) Disease modifying antirheumatic drugs (DMARDs) ≥ 12 weeks[22]
- ☐ B) PT or home exercise ≥ 12 weeks[23, 15]
- ☐ C) Activity modification ≥ 12 weeks
- ☐ D) Other clinical information (add comment)

- If the number of options selected is 3 and option D not selected, then go to question 5
- No other options lead to the requested service

5. Choose all that apply:

Total Joint Replacement (TJR), Knee

☐ 50. Rheumatoid arthritis ***(Continued...)***

- ☐ A) Continued symptoms or findings after treatment
- ☐ B) No active infection[12]
- ☐ C) Other clinical information (add comment)

- If the number of options selected is 2 and option C not selected, then the rule is satisfied; you may stop here ***(Inpatient)***
- No other options lead to the requested service

Total Joint Replacement (TJR), Knee

Notes

(1)
I/O Setting: Inpatient

(2)
These criteria include the following procedure:
Arthroplasty, Total, Knee

(3)
Def: Arthroplasty is the surgical reconstruction or replacement of a painful, damaged joint due to degeneration (e.g., arthritis), trauma, or deformity.

(4)
Total knee replacements, total hip replacements, and unicondylar replacements can be done using a minimally invasive technique. More research is needed to study the short- and long-term outcomes of these approaches, including the potential risks and benefits, compared to traditional replacement techniques (Smith et al., Int Orthop 2011, 35: 173-84; Hernandez-Vaquero et al., BMC Musculoskelet Disord 2010, 11: 27; Khanna et al., Orthop Clin North Am 2009, 40: 479-89, viii).

(5)
Although initial studies have shown favorable outcomes for the use of computer-assisted and robotic techniques in knee and hip arthroplasty, further research is needed to determine the advantages and cost-effectiveness of these approaches (Bar et al., Acta Orthop Traumatol Turc 2011, 45: 185-9; Reininga et al., BMC Musculoskelet Disord 2010, 11: 92).

(6)
Current guidelines from multiple medical societies recommend weight loss as part of the management of patients with osteoarthritis of the knee; however, obesity should not be a barrier to joint replacement surgery (American Academy of Orthopaedic Surgeons (AAOS), Surgical Management of Osteoarthritis of the Knee. 2015; McAlindon et al., Osteoarthritis Cartilage 2014, 22: 363-88; National Institute for Health and Care Excellence (NICE), Osteoarthritis. Clinical Guideline 177. Feb. 2014 [citedJuly 2015]; American Academy of Orthopaedic Surgeons (AAOS), Treatment of Osteoarthritis of the Knee. 2013; Hochberg et al., Arthritis Care Res (Hoboken) 2012, 64: 465-74).

(7)
The available literature, including systematic reviews and meta-analyses, indicates that smoking cessation starting at least 4 to 8 weeks prior to surgery reduces the risk of wound-healing complications and respiratory complications (Wong et al., Can J Anaesth 2012, 59: 268-79; Myers et al., Archives of internal medicine 2011, 171: 983-9). Despite this, current guidelines on the care and management of osteoarthritis from the National Institute for Health Care and Excellence (NICE) state that patient factors, including smoking, should not be barriers to referral for joint surgery. Patients are encouraged to quit and to participate in smoking cessation programs, which improve the outcomes of surgery and reduce the risk of surgical site infection, poor bone healing, and other postoperative complications (National Institute for Health and Care Excellence (NICE), Osteoarthritis. Clinical Guideline 177. Feb. 2014 [citedJuly 2015]). The effect of smoking on postoperative complications after joint replacement surgery remains unclear. A retrospective study using data from the national VA Surgical Quality Improvement Program investigated the impact of smoking at the time of surgery on 30-day postoperative complications after total knee and hip replacement. The study showed that smokers had a 41% increased risk of surgical site infections compared with nonsmokers. Current smokers had an increased risk for 30-day postoperative pneumonia and an increased mortality at 1 year compared with nonsmokers (Singh et al., Arthritis Care Res (Hoboken) 2011, 63: 1365-74).

(8)
InterQual® Procedures criteria are derived from the systematic, continuous review and critical appraisal of the most current evidence-based literature and include input from our independent panel of clinical experts. To generate the most appropriate recommendations, a comprehensive literature review of the clinical evidence was conducted. Sources searched included PubMed, Agency for Healthcare Research and Quality (AHRQ) Comparative Effectiveness Reviews, the Cochrane Library, Choosing Wisely, Centers for Medicare &Medicaid Services (CMS) National Coverage Determinations, the National Institute of Health and Care Excellence (NICE), and the National Guideline Clearinghouse. Other medical literature databases, medical content providers, data sources, regulatory body websites, and specialty society resources may also have been used. Relevant studies were assessed for risk of bias following principles described in the Cochrane Handbook. The resulting evidence was assessed for consistency, directness, precision, effect size, and publication bias. Observational trials were also evaluated for the presence of a dose-response gradient and the likely effect of plausible confounders.

(9)
Although certain conditions are more likely to cause pain with passive ROM, patients who experience pain with either active or passive ROM should be further evaluated to rule out potential causes for the discomfort.

Total Joint Replacement (TJR), Knee

(10)
Def: Crepitus is a grating sensation caused by two irregular cartilage surfaces moving relative to each other. It may be audible or palpable and is appreciated when the joint is extended or flexed.

(11)
An effusion represents a fluid collection within the joint space and implies an intra-articular problem.

(12)
Infection is an absolute contraindication to joint replacement unless totally eradicated. Active infection in any location may seed a new prosthesis. The infection should be aggressively treated prior to the replacement surgery with anti-infectives. Anti-infectives may be continued after the replacement to prevent reinfection of the site.

(13)
External joint support is important adjunctive therapy in most cases. Canes, crutches, or walkers can be used to decrease weight-bearing load and alleviate symptoms. Immobilization devices (e.g., splints, taping, braces, immobilizers) can be used to restrict movement, thereby reducing pain, improving stability, and decreasing the risk of falling.

(14)
NSAIDs are preferred for pain management because of their anti-inflammatory effect; however, these drugs may be contraindicated in patients with certain medical conditions or comorbidities (e.g., pregnancy, peptic ulcer disease, decreased renal function, asthma). In these cases, acetaminophen can be used as an alternative to NSAIDs for pain management.

(15)
This criteria point includes therapy by provider instruction to the patient, as well as supervised training through formal therapy (e.g., PT, OT). Therapy may not be appropriate if symptoms have been present for a long time and exercise has been attempted previously, or if symptoms are severe on presentation. The decision to recommend a home (i.e., unsupervised) therapy program or supervised therapy is a matter of clinical judgment.

(16)
Surgery is appropriate for symptomatic patients with severe osteoarthritis causing bone-on-bone contact. Patients without bone-on-bone contact should try a course of medical treatment before considering if joint replacement is necessary.

(17)
Common posttraumatic arthritis findings may include joint space narrowing, osteophytes, or subchondral sclerosis. Osteoarthritis is characterized by the formation of osteophytes, subchondral sclerosis, subchondral cysts, loose bodies, and joint space narrowing.

(18)
Current guidelines recommend that accurate information, both verbal and written, be offered to all patients with osteoarthritis, and education should be an ongoing, integral part of the management plan (National Institute for Health and Care Excellence (NICE), Osteoarthritis. Clinical Guideline 177. Feb. 2014 [citedJuly 2015]). Evidence shows that although there may be an additional increase in cost during implementation, a combination of preoperative education and physiotherapy may lower medical costs associated with joint replacement surgery (Jordan et al., Physiotherapy 2014, 100: 305-12; Brooks, Bone Joint J 2013, 95-B: 67-9; Ibrahim et al., Bone Joint J 2013, 95-B: 1587-94).

(19)
External joint support for osteoarthritis of the knee may be an important adjunctive therapy in some cases. Guideline recommendations regarding adjunctive therapy are inconsistent. Canes or assistive devices can be used to decrease weight-bearing load and alleviate symptoms (McAlindon et al., Osteoarthritis Cartilage 2014, 22: 363-88; National Institute for Health and Care Excellence (NICE), Osteoarthritis. Clinical Guideline 177. Feb. 2014 [citedJuly 2015]; Fernandes et al., Ann Rheum Dis 2013, 72: 1125-35). Braces or insoles can be used to reduce stress on the joint, reduce pain, and improve stability. Some guidelines support the use of bracing and insoles and others are unable to make a recommendation for or against this type of adjunctive therapy based upon the available evidence (McAlindon et al., Osteoarthritis Cartilage 2014, 22: 363-88; National Institute for Health and Care Excellence (NICE), Osteoarthritis. Clinical Guideline 177. Feb. 2014 [citedJuly 2015]; American Academy of Orthopaedic Surgeons (AAOS), Treatment of Osteoarthritis of the Knee. 2013; Fernandes et al., Ann Rheum Dis 2013, 72: 1125-35; Hochberg et al., Arthritis Care Res (Hoboken) 2012, 64: 465-74). While recent systematic reviews suggest that bracing can alter knee joint mechanics, the effect of bracing and insoles on pain, stiffness, and function vary (Duivenvoorden et al., Cochrane Database Syst Rev 2015, 3: CD004020; Moyer et al., Arthritis Care Res (Hoboken) 2015, 67: 493-501; Moyer et al., Osteoarthritis Cartilage 2015, 23: 178-88; Parkes et al., JAMA 2013, 310: 722-30). External joint support use should be determined by a specialist and based upon an individual's medical history.

(20)
Pharmacological pain management with oral or topical NSAIDs is an important adjunctive therapy in the treatment of osteoarthritis (Massey et al., The Cochrane database of systematic reviews 2014: CD007402). While current guidelines from the National Institute for Health Care Excellence (NICE) recommend acetaminophen or topical NSAIDs as first-line pharmacological agents over oral NSAIDs, they acknowledge that recent evidence has shown reduced efficacy of acetaminophen in the management of osteoarthritis (National

Total Joint Replacement (TJR), Knee

Institute for Health and Care Excellence (NICE), Osteoarthritis. Clinical Guideline 177. Feb. 2014 [citedJuly 2015]). A patient's medical history, medications, and comorbidities should be considered when choosing appropriate pharmacological pain treatment.

(21)

Conservative therapy is first-line treatment for pain in patients with osteoarthritis. All relevant guidelines recommend exercise as core treatment for osteoarthritis of the hip and knee (McAlindon et al., Osteoarthritis Cartilage 2014, 22: 363-88; National Institute for Health and Care Excellence (NICE), Osteoarthritis. Clinical Guideline 177. Feb. 2014 [citedJuly 2015]; American Academy of Orthopaedic Surgeons (AAOS), Treatment of Osteoarthritis of the Knee. 2013; Fernandes et al., Ann Rheum Dis 2013, 72: 1125-35; Hochberg et al., Arthritis Care Res (Hoboken) 2012, 64: 465-74). Several systematic reviews confirm the effectiveness of exercise therapy (Anwer et al., J Geriatr Phys Ther 2015:; Fransen et al., Cochrane Database Syst Rev 2015, 1: CD004376; Fransen et al., Cochrane Database Syst Rev 2014, 4: CD007912; Uthman et al., BMJ 2013, 347: f5555; Shamliyan TA et al., Physical Therapy Interventions for Knee Pain Secondary to Osteoarthritis. Comparative Effectiveness Review No. 77. 2012).

(22)

Disease-specific treatment should be initiated upon diagnosis. Methotrexate is the first-line disease modifying antirheumatic drug (DMARD) used for treating active rheumatoid arthritis with optimal dosage by 8 weeks. Follow-up should be provided by 3 months in anticipation of a stable medication regime within 6 months (Smolen et al., Annals of the rheumatic diseases 2014, 73: 492-509). Short-term glucocorticoid therapy, including intra-articular injection, can relieve pain, improve range of motion, and decrease morning stiffness while minimizing inflammation and disease progression. Combination therapy of methotrexate and biologics can improve clinical response and functional capacity in patients not responding to monotherapy (Singh et al., Arthritis Rheumatol 2016, 68: 1-26; Gaujoux-Viala et al., Joint, bone, spine: revue du rhumatisme 2014, 81: 287-97).

(23)

In a systematic review, resistance exercises for patients with rheumatoid arthritis was safe and improved muscle strength and walking performance while decreasing disability (Baillet et al., Rheumatology 2012, 51: 519-27). Patients with rheumatoid arthritis should, therefore, be encouraged to include simple dynamic exercises as part of their overall management regime (e.g., physio-therapy, physical therapy, diet) (Gaujoux-Viala et al., Joint, bone, spine: revue du rhumatisme 2014, 81: 287-97; Scottish Intercollegiate Guidelines Network (SIGN), Management of early rheumatoid arthritis. SIGN publication no. 123. 2011).

Total Joint Replacement (TJR), Knee

ICD-9 (circle all that apply): 239.2, 714.0, 714.1, 714.2, 714.30, 714.31, 714.32, 714.33, 714.4, 715.16, 715.26, 715.36, 715.96, 716.16, 733.43, 733.49, 733.81, 733.82, 81.54, Other_____

ICD-10-CM (circle all that apply): D49.2, M05.00, M05.30, M05.60, M06.1, M06.9, M08.00, M08.3, M08.40, M12.00, M12.569, M17.10, M17.5, M17.9, M87.059, M87.08, S82.009P, S82.009Q, S82.009R, S82.90XK, S82.90XM, S82.90XN, S82.90XP, S82.90XQ, S82.90XR, Other_____

ICD-10-PCS (circle all that apply): 0SRC07Z, 0SRC0J9, 0SRC0JZ, 0SRC0KZ, 0SRD07Z, 0SRD0JZ, 0SRD0KZ, 0SRT07Z, 0SRT0JZ, 0SRT0KZ, 0SRU07Z, 0SRU0JZ, 0SRU0KZ, 0SRV07Z, 0SRV0JZ, 0SRV0KZ, 0SRW07Z, 0SRW0JZ, 0SRW0KZ, Other_____

CPT® (circle all that apply): 27447, Other_____