

## **SUPPLEMENTARY APPENDIX 5: Search Strategies**

# **2023 American College of Rheumatology (ACR) and American Association of Hip and Knee Surgeons (AAHKS) Clinical Practice Guideline for the Optimal Timing of Elective Hip or Knee Arthroplasty for Patients with Symptomatic Moderate to Severe Osteoarthritis or Advanced Symptomatic Osteonecrosis with Secondary Arthritis For Who Nonoperative Therapy Is Ineffective**

SEARCH STRATEGIES (From database inception to June 19, 2022)

### **OVID MEDLINE**

#### **PICO 1**

1. HIP ARTHROPLASTY/ or exp HIP REPLACEMENT/
2. KNEE ARTHROPLASTY/ or KNEE REPLACEMENT/
3. (KNEE ARTHROPLAST\* or KNEE RECONSTRUCTION\*).ti,ab,kw.
4. HIP REPLACEMENT/ or HIP HEMIARTHROPLASTY/ or TOTAL HIP REPLACEMENT/ or HIP ARTHROPLAST\*.ti,ab,kw.  
((HIP or HIPS or KNEE or KNEES) and (ARTHROPLAST\* or REPLACEMENT\*)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
5. REPLACEMENT ARTHROPLASTY/ and (HIP or HIPS or KNEE or KNEES).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
6. ((JOINT adj2 REPLAC\*) and (HIP or HIPS or KNEE or KNEES)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
7. drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
8. or/1-7
9. ANIMALS/ not HUMANS/
10. 8 not 9
11. ABSTRACT REPORT/ or CONFERENCE PAPER/ or EDITORIAL/ or LETTER/
12. 10 not 11
13. limit 12 to english language
14. PATIENT-REPORTED OUTCOME/

- ((MINIMAL\* or CLINICAL\*) adj2 (IMPROVE\* or DIFFERENCE\*)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
- 15.
  16. TREATMENT OUTCOME/
  17. OUTCOME ASSESSMENT/
  18. FUNCTIONAL OUTCOME\*.ti,ab,kw.
  19. PATIENT SATISFACTION/
  20. SATISFACTION SCORE\*.ti,ab,kw.
  21. PATIENT DISSATISF\*.ti,ab,kw.
  22. FOLLOW UP STUD\*.mp.
  23. LONGITUDINAL STUDY/
  24. CLINICAL EFFECTIVENESS/
  25. CLINICAL EFF\*.ti,ab,kw.
  26. TREATMENT EFFECTIVENESS\*.ti,ab,kw.
  27. "JOINT CHARACTERISTICS AND FUNCTIONS"/  
(RANGE OF MOTION/ or RANGE OF MOTION.ti,ab,kw.) and (HIP or HIPS or KNEE or KNEES).mp.
  28. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]  
(JOINT MOBILITY/ or JOINT MOBILITY.ti,ab,kw. or JOINT FLEXIBIL\*.ti,ab,kw.) and (KNEE or KNEES or HIP or HIPS).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
  - 29.
  30. (RESIDUAL adj2 ANGULAT\*).ti,ab,kw.
  31. or/14-30
  32. WAITING PERIOD\*.ti,ab,kw.
  33. (WAIT TIME or TIMING).ti,ab,kw.
  34. TIME TO TREATMENT/
  35. TREATMENT TIME\*.ti,ab,kw.
  36. "TIME TO THERAPY".ti,ab,kw.
  37. "TIME TO TREATMENT".ti,ab,kw.
  38. (WAITING LIST\* or WAIT LIST\*).ti,ab,kw.  
(DEFERRAL or DELAY\* or POSTPON\*) adj4 (SURGER\* or ARTHROPLAST\* or PRESENTATION\* or TREATMENT or TKR or THR or KNEE REPLACEMENT or HIP REPLACEMENT)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
  - 39.
  40. or/32-39
  41. DETERIORATION/ or CLINICAL DETERIORAT\*.ti,ab,kw.
  42. SICKNESS IMPACT PROFILE/
  43. DISEASE SEVERITY/

- ((OSTEOARTHRI\* or SYMPTOM\* or DISEASE\* or ILLNESS\* or PREOP\* or PRE OP\*) adj3 (SEVER\* or DURATION or WORSEN\* or ENDSTAGE or END-STAGE or ADVANCED or PROGRESSIVE or DETERIORAT\* or EXACERBAT\*)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
- (RADIOGRAPH\* adj2 (ADVANC\* or SEVER\*)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
44. DETERIORAT\* or EXACERBAT\*).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
45. name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
46. "WESTERN ONTARIO AND MCMASTER UNIVERSITIES OSTEOARTHRITIS INDEX"/
47. WOMAC.ti,ab,kw.
48. PATIENT SELECTION/
49. TREATMENT INDICATION/
50. INDICATION\*.ti,ab,kw.
- (PAIN adj2 (INTENS\* or SEVER\* or DURATION)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
51. name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
52. PAIN ASSESSMENT/
- (PAIN SCALE\* or PAIN SCORE\* or ANALGESIA TEST\* or FORMALIN TEST\* or NOCICEPTION TEST\* or PAIN MEASUREMENT\* or PAIN TEST\*).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
53. original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
54. MCGILL PAIN QUESTIONNAIRE/
55. PAIN RATING\*.ti,ab,kw.
56. PAIN MEASUREMENT/
57. HEALTH STATUS INDICATOR/
58. PATIENT ACUITY/
59. PATIENT ACUIT\*.ti,ab,kw.
60. WORSE THAN DEATH.ti,ab,kw.
- (HEALTH adj2 DETERIORAT\*).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
61. device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
62. APPROPRIATE NEED.ti,ab,kw.
63. "APPROPRIATE USE CRITERIA".ti,ab,kw.
64. PATIENT SUITABILITY.ti,ab,kw.
65. or/41-64
66. 13 and 31 and 40 and 65

## PICOs 2-6

1. ARTHROPLASTY, REPLACEMENT, HIP/ or HIP PROSTHESIS/

2. ((HIP or HIPS) adj3 (REPLACEMENT\* or ARTHROPLAST\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
3. ARTHROPLASTY, REPLACEMENT, KNEE/ or KNEE PROSTHESIS/  
((KNEE or KNEES) adj3 (REPLACEMENT\* or ARTHROPLAST\*)).mp. [mp=title, abstract, original title,
4. name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
5. ARTHROPLASTY, REPLACEMENT/ and (HIP or HIPS or KNEE or KNEES).ti,ab.  
((JOINT adj3 REPLACEMENT\*) and (KNEE or KNEES or HIP or HIPS)).mp. [mp=title, abstract, original
6. title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
7. or/1-6
8. ANIMALS/ not (ANIMALS/ and HUMANS/)
9. 7 not 8
10. COMMENT/ or EDITORIAL/ or LETTER/
11. 9 not 10
12. limit 11 to english language
13. OSTEOARTHRITIS, HIP/ or OSTEOARTHRITIS, KNEE/
14. OSTEOARTHRITIS/ or OSTEOARTHRIT\*.ti,ab,kw. or DEGENERATIVE JOINT DISEASE\*.ti,ab,kw.
15. 13 or 14
16. 15 not 8
17. 16 not 10
18. limit 17 to english language
19. PHYSICAL THERAPY MODALITIES/
20. (PHYSIOTHERAP\* or PHYSICAL THERAP\*).ti,ab,kw.
21. 19 or 20
22. PAIN MANAGEMENT/ or PAIN, POSTOPERATIVE/ or PAIN MEASUREMENT/  
(PAIN adj2 (RELIEF\* or RELIEV\* or CONTROL\* or IMPROV\* or WORST or AVERAGE or REDUC\* or ELIMINAT\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word,
23. floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
24. "ACTIVITIES OF DAILY LIVING"/ or ACTIVITIES OF DAILY LIVING.ti,ab,kw.
25. OUTCOME\*.ti,ab,kw.
26. FUNCTIONAL STATUS/
27. (FUNCTIONAL DEPENDENCE or FUNCTIONAL INDEPENDENCE or FUNCTIONAL STATUS).ti,ab,kw.
28. PHYSICAL FUNCTION\*.ti,ab,kw.
29. (FUNCTION\* adj2 IMPROV\*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism

- supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
- ((TIME TO or DELAY\* or POSTPON\*) adj3 (ARTHROPLAST\* or TKA or THA or KNEE REPLACEMENT\* or HIP REPLACEMENT\* or SURGER\* or KR or HR)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
30. substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
  31. 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30
  32. 12 and 18 and 21 and 31
  33. ARTHROPLASTY, REPLACEMENT, HIP/ or HIP PROSTHESIS/  
((HIP or HIPS) adj3 (REPLACEMENT\* or ARTHROPLAST\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
  34. ARTHROPLASTY, REPLACEMENT, KNEE/ or KNEE PROSTHESIS/  
((KNEE or KNEES) adj3 (REPLACEMENT\* or ARTHROPLAST\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
  35. ARTHROPLASTY, REPLACEMENT/ and (HIP or HIPS or KNEE or KNEES).ti,ab.  
((JOINT adj3 REPLACEMENT\*) and (KNEE or KNEES or HIP or HIPS)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
  36. or/33-38
  37. ANIMALS/ not (ANIMALS/ and HUMANS/)
  38. 39 not 40
  39. COMMENT/ or EDITORIAL/ or LETTER/
  40. 41 not 42
  41. limit 43 to english language
  42. OSTEOARTHRITIS, HIP/ or OSTEOARTHRITIS, KNEE/
  43. OSTEOARTHRITIS/ or OSTEOARTHRIT\*.ti,ab,kw. or DEGENERATIVE JOINT DISEASE\*.ti,ab,kw.
  44. 45 or 46
  45. 47 not 40
  46. 48 not 42
  47. limit 49 to english language
  48. NSAID\*.ti,ab,kw.  
(ANTI-INFLAMMATORY ANALGESIC\* or ASPIRIN LIKE AGENT\* or NON STEROIDAL ANTI INFLAMMATORY AGENT\* or NONSTEROIDAL ANTI INFLAMMATORY AGENT\* or NONSTEROIDAL ANTIINFLAMMATORY AGENT\*).ti,ab,kw.
  49. exp ANTI-INFLAMMATORY AGENTS, NON-STEROIDAL/
  50. CYCLOOXYGENASE INHIBITORS/ or CYCLOOXYGENASE INHIBITOR\*.ti,ab,kw.

55. 51 or 52 or 53 or 54  
(PAIN adj2 (RELIEF\* or RELIEVE\* or REDUC\* or ELIMINAT\* or CONTROL\* or IMPROV\* or WORSE or WORST or AVERAGE)).mp. [mp=title, abstract, original title, name of substance word, subject
56. heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
57. PAIN, POSTOPERATIVE/ or PAIN MEASUREMENT/ or PAIN MANAGEMENT/
58. ACTIVITIES OF DAILY LIVING/ or ACTIVITIES OF DAILY LIVING\*.ti,ab,kw.
59. FUNCTIONAL STATUS/ or (FUNCTIONAL DEPENDENCE or FUNCTIONAL INDEPENDENCE or FUNCTIONAL STATUS).ti,ab,kw.
60. OUTCOME\*.ti,ab,kw.
61. PHYSICAL FUNCTION\*.ti,ab,kw.  
(FUNCTION\* adj2 IMPROV\*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism
62. supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]  
((TIME TO or DELAY\* or POSTPON\*) adj3 (ARTHROPLAST\* or TKA or THA or KNEE REPLACEMENT\* or HIP REPLACEMENT\* or SURGER\* or KR or HR)).mp. [mp=title, abstract, original title, name of
63. substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
64. 56 or 57 or 58 or 59 or 60 or 61 or 62 or 63
65. 44 and 50 and 55 and 64
66. ARTHROPLASTY, REPLACEMENT, HIP/ or HIP PROSTHESIS/  
((HIP or HIPS) adj3 (REPLACEMENT\* or ARTHROPLAST\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading
67. word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
68. ARTHROPLASTY, REPLACEMENT, KNEE/ or KNEE PROSTHESIS/  
((KNEE or KNEES) adj3 (REPLACEMENT\* or ARTHROPLAST\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading
69. word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
70. ARTHROPLASTY, REPLACEMENT/ and (HIP or HIPS or KNEE or KNEES).ti,ab.  
((JOINT adj3 REPLACEMENT\*) and (KNEE or KNEES or HIP or HIPS)).mp. [mp=title, abstract, original
71. title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
72. or/66-71
73. ANIMALS/ not (ANIMALS/ and HUMANS/)
74. 72 not 73
75. COMMENT/ or EDITORIAL/ or LETTER/
76. 74 not 75

77. limit 76 to english language
78. OSTEOARTHRITIS, HIP/ or OSTEOARTHRITIS, KNEE/
79. OSTEOARTHRITIS/ or OSTEOARTHRIT\*.ti,ab,kw. or DEGENERATIVE JOINT DISEASE\*.ti,ab,kw.
80. 78 or 79
81. PAIN MANAGEMENT/ or PAIN MEASUREMENT/ or PAIN, POSTOPERATIVE/  
(PAIN adj2 (IMPROV\* or CONTROL\* or REDUC\* or RELIEF\* or RELIEV\* or AVERAGE or WORST)).mp. [mp=title, abstract, original title, name of substance word, subject heading word,
82. floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
83. "ACTIVITIES OF DAILY LIVING"/ or "ACTIVITIES OF DAILY LIVING".ti,ab,kw.  
((TIME TO or DELAY\* or POSTPON\*) adj3 (ARTHROPLAST\* or TKA or THA or KNEE REPLACEMENT\* or HIP REPLACEMENT\* or SURGER\* or KR or HR)).mp. [mp=title, abstract, original title, name of
84. substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
85. FUNCTIONAL STATUS/ or (FUNCTIONAL DEPENDENCE or FUNCTIONAL INDEPENDENCE or FUNCTIONAL STATUS).ti,ab,kw.
86. OUTCOME\*.ti,ab,kw.
87. PHYSICAL FUNCTION\*.ti,ab,kw.  
(FUNCTION\* adj2 IMPROV\*).mp. [mp=title, abstract, original title, name of substance word,
88. subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
89. ORTHOTIC DEVICES/ or BRACES/
90. ORTHOTIC\*.ti,ab,kw.
91. (BRACE or BRACES).ti,ab,kw.
92. (AMBULATORY AIDS or AMBULATORY AID).ti,ab,kw.
93. AMBULATORY ASSISTIVE DEVICE\*.ti,ab,kw.
94. WALKING AIDS.ti,ab,kw.
95. CANES/ or CRUTCHES/ or WALKERS/
96. ORTHOPEDIC EQUIPMENT/ and (WALKING/ or WALKING.ti,ab,kw.)
97. ORTHOSES.mp.
98. SHOES/ or SHOES.ti,ab,kw.
99. 89 or 90 or 91 or 92 or 93 or 94 or 95 or 96 or 97 or 98
100. 81 or 82 or 83 or 84 or 85 or 86 or 87 or 88
101. 77 and 80 and 99 and 100
102. ARTHROPLASTY, REPLACEMENT, HIP/ or HIP PROSTHESIS/  
((HIP or HIPS) adj3 (REPLACEMENT\* or ARTHROPLAST\*)).mp. [mp=title, abstract, original title,
103. name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]

104. ARTHROPLASTY, REPLACEMENT, KNEE/ or KNEE PROSTHESIS/  
 ((KNEE or KNEES) adj3 (REPLACEMENT\* or ARTHROPLAST\*)).mp. [mp=title, abstract, original title,  
 105. name of substance word, subject heading word, floating sub-heading word, keyword heading  
 word, organism supplementary concept word, protocol supplementary concept word, rare disease  
 supplementary concept word, unique identifier, synonyms]
106. ARTHROPLASTY, REPLACEMENT/ and (HIP or HIPS or KNEE or KNEES).ti,ab.  
 ((JOINT adj3 REPLACEMENT\*) and (KNEE or KNEES or HIP or HIPS)).mp. [mp=title, abstract, original  
 107. title, name of substance word, subject heading word, floating sub-heading word, keyword heading  
 word, organism supplementary concept word, protocol supplementary concept word, rare disease  
 supplementary concept word, unique identifier, synonyms]
108. or/102-107
109. ANIMALS/ not (ANIMALS/ and HUMANS/)
110. 108 not 109
111. COMMENT/ or EDITORIAL/ or LETTER/  
 112. 110 not 111
113. limit 112 to english language
114. OSTEOARTHRITIS, HIP/ or OSTEOARTHRITIS, KNEE/  
 115. OSTEOARTHRITIS/ or OSTEOARTHRIT\*.ti,ab,kw. or DEGENERATIVE JOINT DISEASE\*.ti,ab,kw.
116. 114 or 115
117. 116 not 109
118. 117 not 111
119. limit 118 to english language
120. PAIN MANAGEMENT/ or PAIN MEASUREMENT\*/ or PAIN, POSTOPERATIVE/  
 (PAIN adj2 (RELIEF\* or RELIEV\* or CONTROL\* or IMPROV\* or WORST or AVERAGE or REDUC\* or  
 ELIMINAT\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word,  
 121. floating sub-heading word, keyword heading word, organism supplementary concept word,  
 protocol supplementary concept word, rare disease supplementary concept word, unique  
 identifier, synonyms]
122. "ACTIVITIES OF DAILY LIVING"/ or "ACTIVITIES OF DAILY LIVING".ti,ab,kw.  
 ((TIME TO or DELAY\* or POSTPON\*) adj3 (ARTHROPLAST\* or TKA or THA or KNEE REPLACEMENT\*  
 or HIP REPLACEMENT\* or SURGER\* or KR or HR)).mp. [mp=title, abstract, original title, name of  
 123. substance word, subject heading word, floating sub-heading word, keyword heading word,  
 organism supplementary concept word, protocol supplementary concept word, rare disease  
 supplementary concept word, unique identifier, synonyms]
124. FUNCTIONAL STATUS/ or (FUNCTIONAL DEPENDENCE or FUNCTIONAL INDEPENDENCE or  
 FUNCTIONAL STATUS).ti,ab,kw.
125. OUTCOME\*.ti,ab,kw.
126. PHYSICAL FUNCTION\*.ti,ab,kw.  
 (FUNCTION\* adj2 IMPROV\*).mp. [mp=title, abstract, original title, name of substance word,  
 127. subject heading word, floating sub-heading word, keyword heading word, organism  
 supplementary concept word, protocol supplementary concept word, rare disease supplementary  
 concept word, unique identifier, synonyms]



128. 120 or 121 or 122 or 123 or 124 or 125 or 126 or 127
129. ADRENAL CORTEX HORMONES/ or exp GLUCOCORTICOIDS/
130. (CORTICOSTEROID\* or STEROID\*).ti,ab,kw.
131. INJECTIONS/
132. INJECTION\*.ti,ab,kw.
133. INJECTIONS, INTRA-ARTICULAR/
134. INTRA-ARTICULAR\*.ti,ab.
135. INTRA-ARTICULAR INJECTION\*.ti,ab.
136. (129 or 130) and (131 or 132 or 133 or 134 or 135)
137. 113 and 119 and 128 and 136
138. ARTHROPLASTY, REPLACEMENT, HIP/ or HIP PROSTHESIS/  
 ((HIP or HIPS) adj3 (REPLACEMENT\* or ARTHROPLAST\*)).mp. [mp=title, abstract, original title,  
 139. name of substance word, subject heading word, floating sub-heading word, keyword heading  
 word, organism supplementary concept word, protocol supplementary concept word, rare disease  
 supplementary concept word, unique identifier, synonyms]
140. ARTHROPLASTY, REPLACEMENT, KNEE/ or KNEE PROSTHESIS/  
 ((KNEE or KNEES) adj3 (REPLACEMENT\* or ARTHROPLAST\*)).mp. [mp=title, abstract, original title,  
 141. name of substance word, subject heading word, floating sub-heading word, keyword heading  
 word, organism supplementary concept word, protocol supplementary concept word, rare disease  
 supplementary concept word, unique identifier, synonyms]
142. ARTHROPLASTY, REPLACEMENT/ and (HIP or HIPS or KNEE or KNEES).ti,ab.  
 ((JOINT adj3 REPLACEMENT\*) and (KNEE or KNEES or HIP or HIPS)).mp. [mp=title, abstract, original  
 143. title, name of substance word, subject heading word, floating sub-heading word, keyword heading  
 word, organism supplementary concept word, protocol supplementary concept word, rare disease  
 supplementary concept word, unique identifier, synonyms]
144. or/138-143
145. ANIMALS/ not (ANIMALS/ and HUMANS/)
146. 144 not 145
147. COMMENT/ or EDITORIAL/ or LETTER/
148. 146 not 147
149. limit 148 to english language
150. OSTEOARTHRITIS, HIP/ or OSTEOARTHRITIS, KNEE/
151. OSTEOARTHRITIS/ or OSTEOARTHRIT\*.ti,ab,kw. or DEGENERATIVE JOINT DISEASE\*.ti,ab,kw.
152. 150 or 151
153. 152 not 145
154. 153 not 147
155. limit 154 to english language  
 ((TIME TO or DELAY\* or POSTPON\*) adj3 (ARTHROPLAST\* or TKA or THA or KNEE REPLACEMENT\*  
 156. or HIP REPLACEMENT\* or SURGER\* or KR or HR)).mp. [mp=title, abstract, original title, name of  
 substance word, subject heading word, floating sub-heading word, keyword heading word,

- organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
157. PAIN MANAGEMENT/ or PAIN MEASUREMENT\*/ or PAIN, POSTOPERATIVE/ (PAIN adj2 (RELIEF\* or RELIEV\* or CONTROL\* or REDUC\* or AVERAGE or WORST)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
  158. "ACTIVITIES OF DAILY LIVING"/ or ACTIVITIES OF DAILY LIVING.ti,ab,kw.
  159. OUTCOME\*.ti,ab,kw.
  160. FUNCTIONAL STATUS/
  161. (FUNCTIONAL DEPENDENCE or FUNCTIONAL INDEPENDENCE or FUNCTIONAL STATUS).ti,ab,kw.
  162. PHYSICAL FUNCTION\*.ti,ab,kw. (FUNCTION\* adj2 IMPROV\*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
  163. 156 or 157 or 158 or 159 or 160 or 161 or 162 or 163 or 164
  164. (exp HYALURONIC ACID/ or HYALURONIC ACID.ti,ab,kw.) and (INJECTION\* or INTRAARTICULAR\* or INTRA ARTICULAR\*).ti,ab,kw.
  165. VISCOSUPPLEMENTATION/ or VISCOSUPPLEMENT\*.ti,ab,kw.
  166. 166 or 167
  167. 149 and 155 and 165 and 168
  168. 32 or 65 or 101 or 137 or 169

## PICOs 7-9

1. ARTHROPLASTY, REPLACEMENT, HIP/ or HIP PROSTHESIS/ ((HIP or HIPS) adj3 (REPLACEMENT\* or ARTHROPLAST\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
2. ARTHROPLASTY, REPLACEMENT, KNEE/ or KNEE PROSTHESIS/ ((KNEE or KNEES) adj3 (REPLACEMENT\* or ARTHROPLAST\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
3. ARTHROPLASTY, REPLACEMENT/ and (HIP or HIPS or KNEE or KNEES).ti,ab. ((JOINT adj3 REPLACEMENT\*) and (KNEE or KNEES or HIP or HIPS)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
- 4.
- 5.
- 6.

7. or/1-6
8. ANIMALS/ not (ANIMALS/ and HUMANS/)
9. 7 not 8
10. COMMENT/ or EDITORIAL/ or LETTER/
11. 9 not 10
12. limit 11 to english language
13. BODY MASS INDEX/
14. (BODY MASS INDEX or BMI).ti,ab,kw.
15. OBESITY/ or OBESITY, MORBID/
16. (OBESE or OBESITY).ti,ab,kw.
17. 13 or 14 or 15 or 16
18. WEIGHT LOSS/
19. (WEIGHT LOSS\* or WEIGHT REDUC\* or WEIGHT OPTIMI\*).ti,ab,kw.  
 ((PREOPERATIV\* or PRE OPERATIV\*) and RISK and MODIF\*).mp. [mp=title, abstract, original title,  
 name of substance word, subject heading word, floating sub-heading word, keyword heading word,  
 organism supplementary concept word, protocol supplementary concept word, rare disease  
 supplementary concept word, unique identifier, synonyms]
20. 18 or 19 or 20
21. PAIN MANAGEMENT/ or PAIN, POSTOPERATIVE/ or PAIN MEASUREMENT/
22. PAIN.mp.
23. "ACTIVITIES OF DAILY LIVING"/
24. ACTIVITIES OF DAILY LIVING\*.ti,ab,kw.
25. FUNCTIONAL STATUS/
26. (FUNCTIONAL DEPENDENCE or FUNCTIONAL INDEPENDENCE or FUNCTIONAL STATUS).ti,ab,kw.
27. PHYSICAL FUNCTION\*.ti,ab,kw.  
 (FUNCTION\* adj2 IMPROV\*).mp. [mp=title, abstract, original title, name of substance word, subject  
 heading word, floating sub-heading word, keyword heading word, organism supplementary  
 concept word, protocol supplementary concept word, rare disease supplementary concept word,  
 unique identifier, synonyms]
28. COMPLICATIONS.fx.
29. COMPLICATION\*.ti,ab,kw.
30. ADVERSE EFFECTS.fx.  
 (ADVERSE adj2 (EFFECT\* or EVENT\*)).mp. [mp=title, abstract, original title, name of substance  
 word, subject heading word, floating sub-heading word, keyword heading word, organism  
 supplementary concept word, protocol supplementary concept word, rare disease supplementary  
 concept word, unique identifier, synonyms]
31. 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33
32. TREATMENT OUTCOME/  
 (CLINICAL EFFECTIVENESS or CLINICAL EFFICACY or PATIENT RELEVANT OUTCOME\* or  
 33. REHABILITATION OUTCOME\* or TREATMENT EFFECTIVENESS or TREATMENT EFFICACY or  
 TREATMENT OUTCOME\*).ti,ab,kw.

37. PATIENT REPORTED OUTCOME MEASURES/
38. PATIENT REPORTED OUTCOME\*.ti,ab,kw.
39. 34 or 35 or 36 or 37 or 38
40. 12 and (17 or 21) and 39
41. RISK FACTORS/
42. RISK\*.ti,ab,kw.
43. 41 or 42
44. 40 and 43

### PICOs 10-13

1. ARTHROPLASTY, REPLACEMENT, HIP/ or HIP PROSTHESIS/  
((HIP or HIPS) adj3 (REPLACEMENT\* or ARTHROPLAST\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
2. ((HIP or HIPS) adj3 (REPLACEMENT\* or ARTHROPLAST\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
3. ((KNEE or KNEES) adj3 (REPLACEMENT\* or ARTHROPLAST\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
4. ((KNEE or KNEES) adj3 (REPLACEMENT\* or ARTHROPLAST\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
5. ARTHROPLASTY, REPLACEMENT/ and (HIP or HIPS or KNEE or KNEES).ti,ab.  
((JOINT adj3 REPLACEMENT\*) and (KNEE or KNEES or HIP or HIPS)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
6. or/1-6
7. ANIMALS/ not HUMANS/
8. 7 not 8
9. COMMENT/ or EDITORIAL/ or LETTER/
10. 9 not 10
11. limit 11 to english language
12. ((DEFORMITY or DEFORMITIES) and (BONE\* or JOINT\* or CARTILAGE\* or KNEE or KNEES or HIP or HIPS)).ti,ab,kw.
13. (CHONDROMALACIA PATELLAE or MENISCITIDES or MENISCITIS or OSTEOCHONDRITIDES or OSTEOCHONDRIITIS).ti,ab,kw.
14. LIGAMENTOUS INSTABILIT\*.ti,ab,kw.

16. exp OSTEOLYSIS/
17. OSTEOLYS\*.ti,ab,kw.
18. PATIENT REPORTED OUTCOME MEASURES/
19. PATIENT REPORTED OUTCOME\*.ti,ab,kw.
20. TREATMENT OUTCOME/  
(CLINICAL EFFECTIVENESS or CLINICAL EFFICAC\* or PATIENT RELEVANT OUTCOME\* or TREATMENT EFFECTIVENESS or TREATMENT EFFICAC\* or TREATMENT OUTCOME\*).mp. [mp=title,
21. abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
22. CLINICALLY SIGNIFICANT IMPROVEMENT\*.ti,ab,kw.
23. FUNCTIONAL OUTCOME\*.ti,ab,kw.
24. PATIENT SATISFACTION/
25. PATIENT SATISFACTION.ti,ab,kw.
26. PATIENT DISSATISFACTION\*.ti,ab,kw.
27. 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26
28. 13 or 14 or 15 or 16 or 17
29. DISEASE PROGRESSION/ or CLINICAL DETERIORATION/ or SICKNESS IMPACT PROFILE/
30. "SEVERITY OF ILLNESS INDEX"/  
(OSTEOARTHRIT\* or SYMPTOM\* or DISEASE\* or ILLNESS\* or PREOP\* or PRE OP\*) adj3 (SEVER\* or DURATION or WORSEN\* or ENDSTAGE or END-STAGE or ADVANCED or PROGRESSIVE or DETERIORAT\* or EXACERBAT\*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
31. (RADIOGRAPH\* adj2 (ADVANC\* or SEVER\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
32. ((THE WESTERN ONTARIO and MCMASTER UNIVERSITIES ARTHRITIS INDEX) or WOMAC).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-
33. heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
34. PATIENT SELECTION/ or INDICATION\*.ti,ab,kw.  
(PAIN adj2 (INTENS\* or SEVER\* or DURATION)).mp. [mp=title, abstract, original title, name of
35. substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
36. (ANALGESIA TEST\* or PAIN SCALE\* or PAIN SCORE\* or FORMALIN TEST\* or MCGILL PAIN QUESTIONNAIRE\* or NOCICEPTION TEST\* or PAIN ASSESSMENT\* or PAIN MEASUREMENT\* or PAIN TEST\*).ti,ab,kw.
37. PAIN MEASUREMENT/

38. HEALTH STATUS INDICATORS/
39. exp PATIENT ACUITY/
40. WORSE THAN DEATH.ti,ab,kw.  
(HEALTH adj2 DETERIORAT\*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
41. APPROPRIATE NEED.ti,ab,kw.
42. "APPROPRIATE USE CRITERIA".ti,ab,kw.
43. PATIENT SUITABILIT\*.ti,ab,kw.
44. or/29-44
45. 12 and 28 and 27 and 45
46. ARTHROPLASTY, REPLACEMENT, HIP/ or HIP PROSTHESIS/  
((HIP or HIPS) adj3 (REPLACEMENT\* or ARTHROPLAST\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
47. ARTHROPLASTY, REPLACEMENT, KNEE/ or KNEE PROSTHESIS/  
((KNEE or KNEES) adj3 (REPLACEMENT\* or ARTHROPLAST\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
48. ARTHROPLASTY, REPLACEMENT/ and (HIP or HIPS or KNEE or KNEES).ti,ab.  
((JOINT adj3 REPLACEMENT\*) and (KNEE or KNEES or HIP or HIPS)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
49. or/47-52
50. ANIMALS/ not HUMANS/
51. 53 not 54
52. COMMENT/ or EDITORIAL/ or LETTER/
53. 55 not 56
54. limit 57 to english language
55. DIABETES MELLITUS/ or DIABETES MELLITUS, TYPE 1/ or DIABETES MELLITUS, TYPE 2/
56. DIABET\*.ti,ab,kw.
57. BLOOD GLUCOSE CONTROL/
58. (BLOOD GLUCOSE CONTROL or BLOOD SUGAR CONTROL\* or POORLY CONTROLLED).ti,ab,kw.
59. 59 or 60 or 61 or 62
60. COMPLICATION\*.ti,ab,kw.
61. ADVERSE EFFECTS.fx.

- (ADVERSE adj2 (EFFECT\* or EVENT\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
66. (PAIN adj2 (RELIEF\* or RELIEV\* or REDUC\* or CONTROL\* or AVERAGE\* or WORST or IMPROV\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
67. "ACTIVITIES OF DAILY LIVING"/
68. ACTIVITIES OF DAILY LIVING\*.ti,ab,kw.
69. FUNCTIONAL STATUS/
70. (FUNCTIONAL DEPENDENCE or FUNCTIONAL INDEPENDENCE or FUNCTIONAL STATUS).ti,ab,kw.
71. PHYSICAL FUNCTION\*.ti,ab,kw.
72. (FUNCTION\* adj2 IMPROV\*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
73. 64 or 65 or 66 or 67 or 68 or 69 or 70 or 71 or 72 or 73
74. 58 and 63 and 74
75. ARTHROPLASTY, REPLACEMENT, HIP/ or HIP PROSTHESIS/
76. ((HIP or HIPS) adj3 (REPLACEMENT\* or ARTHROPLAST\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
77. ARTHROPLASTY, REPLACEMENT, KNEE/ or KNEE PROSTHESIS/
78. ((KNEE or KNEES) adj3 (REPLACEMENT\* or ARTHROPLAST\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
79. ARTHROPLASTY, REPLACEMENT/ and (HIP or HIPS or KNEE or KNEES).ti,ab.
80. ((JOINT adj3 REPLACEMENT\*) and (KNEE or KNEES or HIP or HIPS)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
81. or/76-81
82. ANIMALS/ not HUMANS/
83. 82 not 83
84. COMMENT/ or EDITORIAL/ or LETTER/
85. 84 not 85
86. limit 86 to english language
87. COMPLICATION\*.ti,ab,kw.
- 88.

89. ADVERSE EFFECTS.fx.  
(ADVERSE adj2 (EFFECT\* or EVENT\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
90. (PAIN adj2 (RELIEF\* or RELIEV\* or CONTROL\* or IMPROV\* or AVERAGE or WORST or REDUC\* or ELIMINAT\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
91. "ACTIVITIES OF DAILY LIVING"/
92. ACTIVITIES OF DAILY LIVING\*.ti,ab,kw.
93. FUNCTIONAL STATUS/
94. (FUNCTIONAL DEPENDENCE or FUNCTIONAL INDEPENDENCE or FUNCTIONAL STATUS).ti,ab,kw.
95. PHYSICAL FUNCTION\*.ti,ab,kw.  
(FUNCTION\* adj2 IMPROV\*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
96. 88 or 89 or 90 or 91 or 92 or 93 or 94 or 95 or 96 or 97
97. "TOBACCO USE DISORDER"/
98. (NICOTINE ADDICTION\* or NICOTINE DEPENDENC\* or NICOTINE USE\* or TOBACCO DEPENDENC\*).ti,ab,kw.
99. TOBACCO USE\*.ti,ab,kw.
100. SMOKERS/ or SMOKER\*.ti,ab,kw. or SMOKING/ or SMOKING.ti,ab,kw.
101. exp SMOKING CESSATION/ or exp SMOKING REDUCTION/ or exp "TOBACCO USE CESSATION"/
102. 99 or 100 or 101 or 102 or 103
103. 87 and 98 and 104
104. ARTHROPLASTY, REPLACEMENT, HIP/ or HIP PROSTHESIS/  
((HIP or HIPS) adj3 (REPLACEMENT\* or ARTHROPLAST\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
105. ARTHROPLASTY, REPLACEMENT, KNEE/ or KNEE PROSTHESIS/  
((KNEE or KNEES) adj3 (REPLACEMENT\* or ARTHROPLAST\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
106. ARTHROPLASTY, REPLACEMENT/ and (HIP or HIPS or KNEE or KNEES).ti,ab.  
((JOINT adj3 REPLACEMENT\*) and (KNEE or KNEES or HIP or HIPS)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
107. 111.



112. or/106-111
113. ANIMALS/ not HUMANS/
114. 112 not 113
115. COMMENT/ or EDITORIAL/ or LETTER/
116. 114 not 115
117. limit 116 to english language
118. (CHARCOT JOINT\* or CHARCOTS JOINT or NEUROGENIC ARTHROPATH\*).ti,ab,kw.
119. (CHARCOT ARTHROPATH\* or CHARCOTS ARTHROPATH\*).ti,ab,kw.  
 ((NEUROPATH\* or NEUROGENIC) adj2 (JOINT\* or CHARCOT\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
- 120.
121. ARTHROPATHY, NEUROGENIC/
122. 118 or 119 or 120 or 121
123. 117 and 122
124. 46 or 75 or 105 or 123

## **EMBASE**

### **PICO 1**

1. HIP ARTHROPLASTY/ or exp HIP REPLACEMENT/
2. KNEE ARTHROPLASTY/ or KNEE REPLACEMENT/
3. (KNEE ARTHROPLAST\* or KNEE RECONSTRUCTION\*).ti,ab,kw.
4. HIP REPLACEMENT/ or HIP HEMIARTHROPLASTY/ or TOTAL HIP REPLACEMENT/ or HIP ARTHROPLAST\*.ti,ab,kw.  
 ((HIP or HIPS or KNEE or KNEES) and (ARTHROPLAST\* or REPLACEMENT\*)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
5. REPLACEMENT ARTHROPLASTY/ and (HIP or HIPS or KNEE or KNEES).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
6. ((JOINT adj2 REPLAC\*) and (HIP or HIPS or KNEE or KNEES)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
7. drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
8. or/1-7
9. ANIMALS/ not HUMANS/
10. 8 not 9
11. ABSTRACT REPORT/ or CONFERENCE PAPER/ or EDITORIAL/ or LETTER/
12. 10 not 11

13. limit 12 to english language
14. PATIENT-REPORTED OUTCOME/  
((MINIMAL\* or CLINICAL\*) adj2 (IMPROVE\* or DIFFERENCE\*)).mp. [mp=title, abstract, heading
15. word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
16. TREATMENT OUTCOME/
17. OUTCOME ASSESSMENT/
18. FUNCTIONAL OUTCOME\*.ti,ab,kw.
19. PATIENT SATISFACTION/
20. SATISFACTION SCORE\*.ti,ab,kw.
21. PATIENT DISSATISF\*.ti,ab,kw.
22. FOLLOW UP STUD\*.mp.
23. LONGITUDINAL STUDY/
24. CLINICAL EFFECTIVENESS/
25. CLINICAL EFF\*.ti,ab,kw.
26. TREATMENT EFFECTIVENESS\*.ti,ab,kw.
27. "JOINT CHARACTERISTICS AND FUNCTIONS"/  
(RANGE OF MOTION/ or RANGE OF MOTION.ti,ab,kw.) and (HIP or HIPS or KNEE or KNEES).mp.
28. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]  
(JOINT MOBILITY/ or JOINT MOBILITY.ti,ab,kw. or JOINT FLEXIBIL\*.ti,ab,kw.) and (KNEE or KNEES or HIP or HIPS).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
29. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
30. (RESIDUAL adj2 ANGULAT\*).ti,ab,kw.
31. or/14-30
32. WAITING PERIOD\*.ti,ab,kw.
33. (WAIT TIME or TIMING).ti,ab,kw.
34. TIME TO TREATMENT/
35. TREATMENT TIME\*.ti,ab,kw.
36. "TIME TO THERAPY".ti,ab,kw.
37. "TIME TO TREATMENT".ti,ab,kw.
38. (WAITING LIST\* or WAIT LIST\*).ti,ab,kw.  
((DEFERRAL or DELAY\* or POSTPON\*) adj4 (SURGER\* or ARTHROPLAST\* or PRESENTATION\* or TREATMENT or TKR or THR or KNEE REPLACEMENT or HIP REPLACEMENT)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
39. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
40. or/32-39
41. DETERIORATION/ or CLINICAL DETERIORAT\*.ti,ab,kw.
42. SICKNESS IMPACT PROFILE/

43. DISEASE SEVERITY/  
 ((OSTEOARTHRIT\* or SYMPTOM\* or DISEASE\* or ILLNESS\* or PREOP\* or PRE OP\*) adj3 (SEVER\* or DURATION or WORSEN\* or ENDSTAGE or END-STAGE or ADVANCED or PROGRESSIVE or  
 44. DETERIORAT\* or EXACERBAT\*)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]  
 (RADIOGRAPH\* adj2 (ADVANC\* or SEVER\*)).mp. [mp=title, abstract, heading word, drug trade  
 45. name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
46. "WESTERN ONTARIO AND MCMASTER UNIVERSITIES OSTEOARTHRITIS INDEX"/
47. WOMAC.ti,ab,kw.
48. PATIENT SELECTION/
49. TREATMENT INDICATION/
50. INDICATION\*.ti,ab,kw.  
 (PAIN adj2 (INTENS\* or SEVER\* or DURATION)).mp. [mp=title, abstract, heading word, drug trade  
 51. name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
52. PAIN ASSESSMENT/  
 (PAIN SCALE\* or PAIN SCORE\* or ANALGESIA TEST\* or FORMALIN TEST\* or NOCICEPTION TEST\* or  
 53. PAIN MEASUREMENT\* or PAIN TEST\*).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
54. MCGILL PAIN QUESTIONNAIRE/
55. PAIN RATING\*.ti,ab,kw.
56. PAIN MEASUREMENT/
57. HEALTH STATUS INDICATOR/
58. PATIENT ACUITY/
59. PATIENT ACUIT\*.ti,ab,kw.
60. WORSE THAN DEATH.ti,ab,kw.  
 (HEALTH adj2 DETERIORAT\*).mp. [mp=title, abstract, heading word, drug trade name, original title,  
 61. device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
62. APPROPRIATE NEED.ti,ab,kw.
63. "APPROPRIATE USE CRITERIA".ti,ab,kw.
64. PATIENT SUITABILITY.ti,ab,kw.
65. or/41-64
66. 13 and 31 and 40 and 65

## PICOs 2-6

1. HIP ARTHROPLASTY/ or exp HIP REPLACEMENT/
2. KNEE ARTHROPLASTY/ or KNEE REPLACEMENT/
3. (KNEE ARTHROPLAST\* or KNEE RECONSTRUCTION\*).ti,ab,kw.
4. HIP REPLACEMENT/ or HIP HEMIARTHROPLASTY/ or TOTAL HIP REPLACEMENT/ or HIP ARTHROPLAST\*.ti,ab,kw.  
((HIP or HIPS or KNEE or KNEES) and (ARTHROPLAST\* or REPLACEMENT\*)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
5. REPLACEMENT ARTHROPLASTY/ and (HIP or HIPS or KNEE or KNEES).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
6. ((JOINT adj2 REPLAC\*) and (HIP or HIPS or KNEE or KNEES)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
7. drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
8. or/1-7
9. ANIMALS/ not HUMANS/
10. 8 not 9
11. ABSTRACT REPORT/ or CONFERENCE PAPER/ or EDITORIAL/ or LETTER/
12. 10 not 11
13. limit 12 to english language
14. HIP OSTEOARTHRITIS/ or KNEE OSTEOARTHRITIS/  
OSTEOARTHRITIS/ and (HIP or HIPS or KNEE or KNEES).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
15. (DEGENERATIVE JOINT DISEASE\* or DEGENERATIVE ARTHRITIS).ti,ab,kw. and (HIP or HIPS or KNEE or KNEES).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
16. (DEGENERATIVE JOINT DISEASE\* or DEGENERATIVE ARTHRITIS).ti,ab,kw. and (HIP or HIPS or KNEE or KNEES).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
17. or/14-16
18. ANIMALS/ not HUMANS/
19. 17 not 18
20. ABSTRACT REPORT/ or CONFERENCE PAPER/ or EDITORIAL/ or LETTER/
21. 19 not 20
22. limit 21 to english language
23. PHYSIOTHERAPY/
24. PHYSICAL THERAP\*.ti,ab,kw.
25. PHYSIOTHERAP\*.ti,ab,kw.
26. or/23-25
27. ANALGESIA/
28. PAIN MANAGEMENT\*.ti,ab,kw.
29. POSTOPERATIVE PAIN/

30. (POSTOPERATIVE PAIN\* or POST OP\* PAIN).ti,ab,kw.
31. PAIN MEASUREMENT/
32. PAIN ASSESSMENT/
33. (PAIN adj2 (RELIEF\* or RELIEV\* or CONTROL\* or IMPROV\* or WORST or AVERAGE or REDUC\* or ELIMINAT\*)).ti,ab,kw.
34. DAILY LIFE ACTIVITY/
35. "ACTIVITIES OF DAILY LIVING".ti,ab,kw.
36. OUTCOME\*.mp.
37. FUNCTIONAL STATUS/
38. (FUNCTIONAL CAPACIT\* or FUNCTIONAL STATUS).ti,ab,kw.
39. (FUNCTIONAL DEPENDENCE or FUNCTIONAL INDEPENDENCE).ti,ab,kw.
40. PHYSICAL FUNCTION\*.ti,ab,kw.  
(FUNCTION adj2 IMPROV\*).mp. [mp=title, abstract, heading word, drug trade name, original title,
41. device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
42. ((TIME TO or DELAY\* or POSTPON\*) adj3 (ARTHROPLAST\* or TKA or THA or KNEE REPLACE\* or HIP REPLACE\* or SURGER\* or KR or HR)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
43. or/27-42
44. 13 and 22 and 26 and 43
45. 13 and 22 and 26 and 43
46. HIP ARTHROPLASTY/ or exp HIP REPLACEMENT/
47. KNEE ARTHROPLASTY/ or KNEE REPLACEMENT/
48. (KNEE ARTHROPLAST\* or KNEE RECONSTRUCTION\*).ti,ab,kw.
49. HIP REPLACEMENT/ or HIP HEMIARTHROPLASTY/ or TOTAL HIP REPLACEMENT/ or HIP ARTHROPLAST\*.ti,ab,kw.  
(HIP or HIPS or KNEE or KNEES) and (ARTHROPLAST\* or REPLACEMENT\*).mp. [mp=title, abstract,
50. heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
51. REPLACEMENT ARTHROPLASTY/ and (HIP or HIPS or KNEE or KNEES).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
52. ((JOINT adj2 REPLAC\*) and (HIP or HIPS or KNEE or KNEES)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
53. or/46-52
54. ANIMALS/ not HUMANS/
55. 53 not 54
56. ABSTRACT REPORT/ or CONFERENCE PAPER/ or EDITORIAL/ or LETTER/
57. 55 not 56

58. limit 57 to english language
59. HIP OSTEOARTHRITIS/ or KNEE OSTEOARTHRITIS/  
OSTEOARTHRITIS/ and (HIP or HIPS or KNEE or KNEES).mp. [mp=title, abstract, heading word, drug
60. trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword  
heading word, floating subheading word, candidate term word]  
(DEGENERATIVE JOINT DISEASE\* or DEGENERATIVE ARTHRITIS).ti,ab,kw. and (HIP or HIPS or KNEE
61. or KNEES).mp. [mp=title, abstract, heading word, drug trade name, original title, device  
manufacturer, drug manufacturer, device trade name, keyword heading word, floating  
subheading word, candidate term word]
62. or/59-61
63. ANIMALS/ not HUMANS/
64. 62 not 63
65. ABSTRACT REPORT/ or CONFERENCE PAPER/ or EDITORIAL/ or LETTER/
66. 64 not 65
67. limit 66 to english language
68. ANALGESIA/
69. PAIN MANAGEMENT\*.ti,ab,kw.
70. POSTOPERATIVE PAIN/
71. (POSTOPERATIVE PAIN\* or POST OP\* PAIN).ti,ab,kw.
72. PAIN MEASUREMENT/
73. PAIN ASSESSMENT/
74. (PAIN adj2 (RELIEF\* or RELIEV\* or CONTROL\* or IMPROV\* or WORST or AVERAGE or REDUC\* or  
ELIMINAT\*)).ti,ab,kw.
75. DAILY LIFE ACTIVITY/
76. "ACTIVITIES OF DAILY LIVING".ti,ab,kw.
77. OUTCOME\*.mp.
78. FUNCTIONAL STATUS/
79. (FUNCTIONAL CAPACIT\* or FUNCTIONAL STATUS).ti,ab,kw.
80. (FUNCTIONAL DEPENDENCE or FUNCTIONAL INDEPENDENCE).ti,ab,kw.
81. PHYSICAL FUNCTION\*.ti,ab,kw.  
(FUNCTION adj2 IMPROV\*).mp. [mp=title, abstract, heading word, drug trade name, original title,
82. device manufacturer, drug manufacturer, device trade name, keyword heading word, floating  
subheading word, candidate term word]  
((TIME TO or DELAY\* or POSTPON\*) adj3 (ARTHROPLAST\* or TKA or THA or KNEE REPLACE\* or HIP
83. REPLACE\* or SURGER\* or KR or HR)).mp. [mp=title, abstract, heading word, drug trade name,  
original title, device manufacturer, drug manufacturer, device trade name, keyword heading word,  
floating subheading word, candidate term word]
84. or/68-83
85. exp NONSTEROID ANTIINFLAMMATORY AGENT/
86. NSAID\*.ti,ab,kw.
87. exp PROSTAGLANDIN SYNTHASE INHIBITOR/

88. CYCLOOXYGENASE INHIBITOR\*.ti,ab,kw.  
(ANTI-INFLAMMATORY ANALGESIC\* or ASPIRIN LIKE AGENT\* or NON STEROIDAL ANTI
89. INFLAMMATORY AGENT\* or NONSTEROIDAL ANTI INFLAMMATORY AGENT\* or NONSTEROIDAL ANTIINFLAMMATORY AGENT\*).ti,ab,kw.
90. or/85-89
91. 58 and 67 and 84 and 90
92. 58 and 67 and 84 and 90
93. HIP ARTHROPLASTY/ or exp HIP REPLACEMENT/
94. KNEE ARTHROPLASTY/ or KNEE REPLACEMENT/
95. (KNEE ARTHROPLAST\* or KNEE RECONSTRUCTION\*).ti,ab,kw.  
HIP REPLACEMENT/ or HIP HEMIARTHROPLASTY/ or TOTAL HIP REPLACEMENT/ or HIP
96. ARTHROPLAST\*.ti,ab,kw.  
((HIP or HIPS or KNEE or KNEES) and (ARTHROPLAST\* or REPLACEMENT\*)).mp. [mp=title, abstract,
97. heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]  
REPLACEMENT ARTHROPLASTY/ and (HIP or HIPS or KNEE or KNEES).mp. [mp=title, abstract,
98. heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]  
((JOINT adj2 REPLAC\*) and (HIP or HIPS or KNEE or KNEES)).mp. [mp=title, abstract, heading word,
99. drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
100. or/93-99
101. ANIMALS/ not HUMANS/
102. 100 not 101
103. ABSTRACT REPORT/ or CONFERENCE PAPER/ or EDITORIAL/ or LETTER/
104. 102 not 103
105. limit 104 to english language
106. HIP OSTEOARTHRITIS/ or KNEE OSTEOARTHRITIS/  
OSTEOARTHRITIS/ and (HIP or HIPS or KNEE or KNEES).mp. [mp=title, abstract, heading word, drug
107. trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]  
(DEGENERATIVE JOINT DISEASE\* or DEGENERATIVE ARTHRITIS).ti,ab,kw. and (HIP or HIPS or KNEE
108. or KNEES).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
109. or/106-108
110. ANIMALS/ not HUMANS/
111. 109 not 110
112. ABSTRACT REPORT/ or CONFERENCE PAPER/ or EDITORIAL/ or LETTER/
113. 111 not 112
114. limit 113 to english language
115. ANALGESIA/

116. PAIN MANAGEMENT\*.ti,ab,kw.
117. POSTOPERATIVE PAIN/
118. (POSTOPERATIVE PAIN\* or POST OP\* PAIN).ti,ab,kw.
119. PAIN MEASUREMENT/
120. PAIN ASSESSMENT/
121. (PAIN adj2 (RELIEF\* or RELIEV\* or CONTROL\* or IMPROV\* or WORST or AVERAGE or REDUC\* or ELIMINAT\*)).ti,ab,kw.
122. DAILY LIFE ACTIVITY/
123. "ACTIVITIES OF DAILY LIVING".ti,ab,kw.
124. OUTCOME\*.mp.
125. FUNCTIONAL STATUS/
126. (FUNCTIONAL CAPACIT\* or FUNCTIONAL STATUS).ti,ab,kw.
127. (FUNCTIONAL DEPENDENCE or FUNCTIONAL INDEPENDENCE).ti,ab,kw.
128. PHYSICAL FUNCTION\*.ti,ab,kw.  
(FUNCTION adj2 IMPROV\*).mp. [mp=title, abstract, heading word, drug trade name, original title,
129. device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
130. ((TIME TO or DELAY\* or POSTPON\*) adj3 (ARTHROPLAST\* or TKA or THA or KNEE REPLACE\* or HIP REPLACE\* or SURGER\* or KR or HR)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
131. or/115-130  
ORTHOSIS/ or BRACE/ or FOOT ORTHOSIS/ or HIP ORTHOSIS/ or HIP-KNEE-ANKLE-FOOT
132. ORTHOSIS/ or INSHOE ORTHOSIS/ or KNEE ORTHOSIS/ or KNEE-ANKLE-FOOT ORTHOSIS/ or LEG ORTHOSIS/ or WALKING ORTHOSIS/
133. (BRACE or BRACES).ti,ab,kw.
134. ORTHOTIC\*.ti,ab,kw.  
WALKING AID/ or CANE/ or CRUTCH/ or GAIT TRAINER/ or ORTHOPEDIC SHOE/ or PLASTER
135. WALKING CAST/ or SURGICAL BOOT/ or WALKER/ or WALKING CAST/ or WALKING HARNESS/ or WALKING MACHINE/ or WALKING ORTHOSIS/
136. AMBULATORY AID\*.ti,ab,kw.
137. AMBULATORY ASSISTIVE DEVICE\*.ti,ab,kw.
138. WALKING AID\*.ti,ab,kw.
139. (CANE or CANES or CRUTCH or CRUTCHES or WALKER or WALKERS).ti,ab,kw.  
(ORTHOPEDIC EQUIPMENT/ or ORTHOPEDIC EQUIPMENT.mp. or ORTHOPAEDIC EQUIPMENT.mp.) and (WALKING/ or WALKING.ti,ab,kw.) [mp=title, abstract, heading word, drug trade name,
140. original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
141. SHOE/
142. (SHOE or SHOES).ti,ab,kw.
143. ORTHOSES.mp.



144. or/132-143
145. 105 and 114 and 131 and 144
146. 105 and 114 and 131 and 144
147. HIP ARTHROPLASTY/ or exp HIP REPLACEMENT/
148. KNEE ARTHROPLASTY/ or KNEE REPLACEMENT/
149. (KNEE ARTHROPLAST\* or KNEE RECONSTRUCTION\*).ti,ab,kw.
150. HIP REPLACEMENT/ or HIP HEMIARTHROPLASTY/ or TOTAL HIP REPLACEMENT/ or HIP ARTHROPLAST\*.ti,ab,kw.  
 ((HIP or HIPS or KNEE or KNEES) and (ARTHROPLAST\* or REPLACEMENT\*)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
151. REPLACEMENT ARTHROPLASTY/ and (HIP or HIPS or KNEE or KNEES).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
152. ((JOINT adj2 REPLAC\*) and (HIP or HIPS or KNEE or KNEES)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
153. drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
154. or/147-153
155. ANIMALS/ not HUMANS/
156. 154 not 155
157. ABSTRACT REPORT/ or CONFERENCE PAPER/ or EDITORIAL/ or LETTER/
158. 156 not 157
159. limit 158 to english language
160. HIP OSTEOARTHRITIS/ or KNEE OSTEOARTHRITIS/ OSTEOARTHRITIS/ and (HIP or HIPS or KNEE or KNEES).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
161. (DEGENERATIVE JOINT DISEASE\* or DEGENERATIVE ARTHRITIS).ti,ab,kw. and (HIP or HIPS or KNEE or KNEES).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
162. drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
163. or/160-162
164. ANIMALS/ not HUMANS/
165. 163 not 164
166. ABSTRACT REPORT/ or CONFERENCE PAPER/ or EDITORIAL/ or LETTER/
167. 165 not 166
168. limit 167 to english language
169. ANALGESIA/
170. PAIN MANAGEMENT\*.ti,ab,kw.
171. POSTOPERATIVE PAIN/
172. (POSTOPERATIVE PAIN\* or POST OP\* PAIN).ti,ab,kw.

173. PAIN MEASUREMENT/  
 174. PAIN ASSESSMENT/  
 175. (PAIN adj2 (RELIEF\* or RELIEV\* or CONTROL\* or IMPROV\* or WORST or AVERAGE or REDUC\* or ELIMINAT\*)).ti,ab,kw.  
 176. DAILY LIFE ACTIVITY/  
 177. "ACTIVITIES OF DAILY LIVING".ti,ab,kw.  
 178. OUTCOME\*.mp.  
 179. FUNCTIONAL STATUS/  
 180. (FUNCTIONAL CAPACIT\* or FUNCTIONAL STATUS).ti,ab,kw.  
 181. (FUNCTIONAL DEPENDENCE or FUNCTIONAL INDEPENDENCE).ti,ab,kw.  
 182. PHYSICAL FUNCTION\*.ti,ab,kw.  
 (FUNCTION adj2 IMPROV\*).mp. [mp=title, abstract, heading word, drug trade name, original title,  
 183. device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]  
 ((TIME TO or DELAY\* or POSTPON\*) adj3 (ARTHROPLAST\* or TKA or THA or KNEE REPLACE\* or HIP REPLACE\* or SURGER\* or KR or HR)).mp. [mp=title, abstract, heading word, drug trade name,  
 184. original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]  
 185. or/169-184  
 186. VISCOSUPPLEMENTATION/  
 187. VISCOSUPPLEMENT\*.ti,ab,kw.  
 188. (HYALURONIC ACID/ or HYALURONIC ACID.ti,ab,kw.) and (INJECTION\* or INTRAARTICULAR\* or INTRA ARTICULAR\*).ti,ab,kw.  
 189. or/186-188  
 190. 159 and 168 and 185 and 189  
 191. 159 and 168 and 185 and 189  
 192. 45 or 92 or 146 or 191

## PICOs 7-9

1. HIP ARTHROPLASTY/ or exp HIP REPLACEMENT/  
 2. KNEE ARTHROPLASTY/ or KNEE REPLACEMENT/  
 3. (KNEE ARTHROPLAST\* or KNEE RECONSTRUCTION\*).ti,ab,kw.  
 4. HIP REPLACEMENT/ or HIP HEMIARTHROPLASTY/ or TOTAL HIP REPLACEMENT/ or HIP ARTHROPLAST\*.ti,ab,kw.  
 ((HIP or HIPS or KNEE or KNEES) and (ARTHROPLAST\* or REPLACEMENT\*)).mp. [mp=title, abstract,  
 5. heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]

- REPLACEMENT ARTHROPLASTY/ and (HIP or HIPS or KNEE or KNEES).mp. [mp=title, abstract,
6. heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
 

((JOINT adj2 REPLAC\*) and (HIP or HIPS or KNEE or KNEES)).mp. [mp=title, abstract, heading word,
  7. drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
  8. or/1-7
  9. ANIMALS/ not HUMANS/
  10. 8 not 9
  11. ABSTRACT REPORT/ or CONFERENCE PAPER/ or EDITORIAL/ or LETTER/
  12. 10 not 11
  13. limit 12 to english language
  14. BODY MASS/
  15. (BODY MASS INDEX or BMI).ti,ab,kw.
  16. OBESITY/ or MORBID OBESITY/
  17. (OBESIT\* or OBESE).ti,ab,kw.
 

(RISK FACTOR/ or RISK\*.mp.) and (14 or 15 or 16 or 17) [mp=title, abstract, heading word, drug
  18. trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
  19. BODY WEIGHT LOSS/
  20. WEIGHT LOSS\*.ti,ab,kw.
  21. (WEIGHT REDUC\* or WEIGHT OPTIM\*).ti,ab,kw.
 

RISK\*.mp. and MODIF\*.ti,ab,kw. [mp=title, abstract, heading word, drug trade name, original title,
  22. device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
  23. PREOPERATIVE PERIOD/
  24. PREOPERATIVE\*.mp. or PRE OP\*.ti,ab,kw.
  25. (23 or 24) and (19 or 20 or 21)
  26. ANALGESIA/
  27. PAIN MANAGEMENT\*.ti,ab,kw.
  28. POSTOPERATIVE PAIN/
  29. (POSTOPERATIVE PAIN\* or POST OP\* PAIN).ti,ab,kw.
  30. PAIN MEASUREMENT/
  31. PAIN ASSESSMENT/
  32. (PAIN adj2 (RELIEF\* or RELIEV\* or CONTROL\* or IMPROV\* or WORST or AVERAGE or REDUC\* or ELIMINAT\*)).ti,ab,kw.
  33. DAILY LIFE ACTIVITY/
  34. "ACTIVITIES OF DAILY LIVING".ti,ab,kw.
  35. OUTCOME\*.mp.
  36. FUNCTIONAL STATUS/
  37. (FUNCTIONAL CAPACIT\* or FUNCTIONAL STATUS).ti,ab,kw.

38. (FUNCTIONAL DEPENDENCE or FUNCTIONAL INDEPENDENCE).ti,ab,kw.
39. PHYSICAL FUNCTION\*.ti,ab,kw.  
(FUNCTION adj2 IMPROV\*).mp. [mp=title, abstract, heading word, drug trade name, original title,
40. device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
41. COMPLICATION/
42. ADVERSE EVENT/
43. (ADVERSE adj2 (EVENT\* or EFFECT\*)).ti,ab,kw.
44. COMPLICATION\*.ti,ab,kw.
45. or/26-44
46. 13 and (18 or 25) and 45

### PICOs 10-13

1. HIP ARTHROPLASTY/ or exp HIP REPLACEMENT/
2. KNEE ARTHROPLASTY/ or KNEE REPLACEMENT/
3. (KNEE ARTHROPLAST\* or KNEE RECONSTRUCTION\*).ti,ab,kw.
4. HIP REPLACEMENT/ or HIP HEMIARTHROPLASTY/ or TOTAL HIP REPLACEMENT/ or HIP ARTHROPLAST\*.ti,ab,kw.  
((HIP or HIPS or KNEE or KNEES) and (ARTHROPLAST\* or REPLACEMENT\*)).mp. [mp=title, abstract,
5. heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
6. REPLACEMENT ARTHROPLASTY/ and (HIP or HIPS or KNEE or KNEES).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
7. ((JOINT adj2 REPLAC\*) and (HIP or HIPS or KNEE or KNEES)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
8. or/1-7
9. ANIMALS/ not HUMANS/
10. 8 not 9
11. ABSTRACT REPORT/ or CONFERENCE PAPER/ or EDITORIAL/ or LETTER/
12. 10 not 11
13. limit 12 to english language
14. (PAIN adj2 (RELIEF\* or RELIEV\* or CONTROL\* or IMPROV\* or WORST or AVERAGE or REDUC\* or ELIMINAT\*)).ti,ab,kw.
15. DAILY LIFE ACTIVITY/
16. "ACTIVITIES OF DAILY LIVING".ti,ab,kw.
17. FUNCTIONAL STATUS/
18. (FUNCTIONAL CAPACIT\* or FUNCTIONAL STATUS).ti,ab,kw.
19. (FUNCTIONAL DEPENDENCE or FUNCTIONAL INDEPENDENCE).ti,ab,kw.

20. PHYSICAL FUNCTION\*.ti,ab,kw.  
(FUNCTION adj2 IMPROV\*).mp. [mp=title, abstract, heading word, drug trade name, original title,
21. device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
22. OUTCOME\*.mp.
23. or/14-22
24. DIABETES MELLITUS/
25. DIABET\*.ti,ab,kw.
26. BLOOD GLUCOSE MONITORING/ or BLOOD GLUCOSE MONITOR\*.ti,ab,kw.  
((BLOOD GLUCOSE or BLOOD SUGAR) adj2 (CONTROL\* or UNCONTROL\*)).mp. [mp=title, abstract,
27. heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
28. or/24-27
29. 13 and 23 and 28
30. 13 and 23 and 28
31. HIP ARTHROPLASTY/ or exp HIP REPLACEMENT/
32. KNEE ARTHROPLASTY/ or KNEE REPLACEMENT/
33. (KNEE ARTHROPLAST\* or KNEE RECONSTRUCTION\*).ti,ab,kw.
34. HIP REPLACEMENT/ or HIP HEMIARTHROPLASTY/ or TOTAL HIP REPLACEMENT/ or HIP ARTHROPLAST\*.ti,ab,kw.  
((HIP or HIPS or KNEE or KNEES) and (ARTHROPLAST\* or REPLACEMENT\*)).mp. [mp=title, abstract,
35. heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
36. REPLACEMENT ARTHROPLASTY/ and (HIP or HIPS or KNEE or KNEES).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
37. ((JOINT adj2 REPLAC\*) and (HIP or HIPS or KNEE or KNEES)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
38. or/31-37
39. ANIMALS/ not HUMANS/
40. 38 not 39
41. ABSTRACT REPORT/ or CONFERENCE PAPER/ or EDITORIAL/ or LETTER/
42. 40 not 41
43. limit 42 to english language
44. (PAIN adj2 (RELIEF\* or RELIEV\* or CONTROL\* or IMPROV\* or WORST or AVERAGE or REDUC\* or ELIMINAT\*)).ti,ab,kw.
45. DAILY LIFE ACTIVITY/
46. "ACTIVITIES OF DAILY LIVING".ti,ab,kw.
47. FUNCTIONAL STATUS/
48. (FUNCTIONAL CAPACIT\* or FUNCTIONAL STATUS).ti,ab,kw.

49. (FUNCTIONAL DEPENDENCE or FUNCTIONAL INDEPENDENCE).ti,ab,kw.
50. PHYSICAL FUNCTION\*.ti,ab,kw.  
(FUNCTION adj2 IMPROV\*).mp. [mp=title, abstract, heading word, drug trade name, original title,
51. device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
52. OUTCOME\*.mp.
53. or/44-52
54. SMOKING/ or "TOBACCO USE"/ or CIGARETTE SMOKING/ or SMOKING HABIT/
55. "TOBACCO USE".ti,ab,kw.
56. (SMOKING or SMOKER\*).ti,ab,kw.
57. TOBACCO DEPENDENCE/
58. NICOTINE DEPENDENCE.ti,ab,kw.
59. SMOKING CESSATION/
60. or/54-59
61. 43 and 53 and 60
62. 43 and 53 and 60
63. HIP ARTHROPLASTY/ or exp HIP REPLACEMENT/
64. KNEE ARTHROPLASTY/ or KNEE REPLACEMENT/
65. (KNEE ARTHROPLAST\* or KNEE RECONSTRUCTION\*).ti,ab,kw.
66. HIP REPLACEMENT/ or HIP HEMIARTHROPLASTY/ or TOTAL HIP REPLACEMENT/ or HIP ARTHROPLAST\*.ti,ab,kw.  
((HIP or HIPS or KNEE or KNEES) and (ARTHROPLAST\* or REPLACEMENT\*)).mp. [mp=title, abstract,
67. heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
68. REPLACEMENT ARTHROPLASTY/ and (HIP or HIPS or KNEE or KNEES).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
69. ((JOINT adj2 REPLAC\*) and (HIP or HIPS or KNEE or KNEES)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
70. or/63-69
71. ANIMALS/ not HUMANS/
72. 70 not 71
73. ABSTRACT REPORT/ or CONFERENCE PAPER/ or EDITORIAL/ or LETTER/
74. 72 not 73
75. limit 74 to english language
76. NEUROPATHIC JOINT DISEASE/
77. (CHARCOT ARTHROPATH\* or CHARCOT DISEASE\* or CHARCOT JOINT\* or NEUROGENIC ARTHROPATH\* or NEUROPATHIC JOINT\*).ti,ab,kw.
78. CHARCOTS JOINT\*.ti,ab,kw.
79. CHARCOTS ARTHROPATH\*.ti,ab,kw.

- ((NEUROPATH\* or NEUROGENIC) adj2 (JOINT\* or CHARCOT\*)).mp. [mp=title, abstract, heading  
80. word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
81. or/76-80
82. 75 and 81
83. 75 and 81
84. 29 or 62 or 83
85. limit 84 to dc=20210711-20220619
86. HIP ARTHROPLASTY/ or exp HIP REPLACEMENT/  
87. KNEE ARTHROPLASTY/ or KNEE REPLACEMENT/  
88. (KNEE ARTHROPLAST\* or KNEE RECONSTRUCTION\*).ti,ab,kw.  
89. HIP REPLACEMENT/ or HIP HEMIARTHROPLASTY/ or TOTAL HIP REPLACEMENT/ or HIP ARTHROPLAST\*.ti,ab,kw.  
((HIP or HIPS or KNEE or KNEES) and (ARTHROPLAST\* or REPLACEMENT\*)).mp. [mp=title, abstract,  
90. heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]  
REPLACEMENT ARTHROPLASTY/ and (HIP or HIPS or KNEE or KNEES).mp. [mp=title, abstract,  
91. heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]  
((JOINT adj2 REPLAC\*) and (HIP or HIPS or KNEE or KNEES)).mp. [mp=title, abstract, heading word,  
92. drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
93. or/86-92
94. ANIMALS/ not HUMANS/  
95. 93 not 94
96. ABSTRACT REPORT/ or CONFERENCE PAPER/ or EDITORIAL/ or LETTER/  
97. 95 not 96
98. limit 97 to english language
99. PATIENT-REPORTED OUTCOME/  
((MINIMAL\* or CLINICAL\*) adj2 (IMPROVE\* or DIFFERENCE\*)).mp. [mp=title, abstract, heading  
100. word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
101. TREATMENT OUTCOME/  
102. OUTCOME ASSESSMENT/  
103. FUNCTIONAL OUTCOME\*.ti,ab,kw.  
104. PATIENT SATISFACTION/  
105. SATISFACTION SCORE\*.ti,ab,kw.  
106. PATIENT DISSATISF\*.ti,ab,kw.  
107. FOLLOW UP STUD\*.mp.  
108. LONGITUDINAL STUDY/  
109. or/99-108

110. DETERIORATION/ or CLINICAL DETERIORAT\*.ti,ab,kw.
111. SICKNESS IMPACT PROFILE/
112. DISEASE SEVERITY/  
 ((OSTEOARTHRIT\* or SYMPTOM\* or DISEASE\* or ILLNESS\* or PREOP\* or PRE OP\*) adj3 (SEVER\* or DURATION or WORSEN\* or ENDSTAGE or END-STAGE or ADVANCED or PROGRESSIVE or
113. DETERIORAT\* or EXACERBAT\*).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]  
 (RADIOGRAPH\* adj2 (ADVANC\* or SEVER\*)).mp. [mp=title, abstract, heading word, drug trade
114. name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
115. "WESTERN ONTARIO AND MCMASTER UNIVERSITIES OSTEOARTHRITIS INDEX"/
116. WOMAC.ti,ab,kw.
117. PATIENT SELECTION/
118. TREATMENT INDICATION/
119. INDICATION\*.ti,ab,kw.  
 (PAIN adj2 (INTENS\* or SEVER\* or DURATION)).mp. [mp=title, abstract, heading word, drug trade
120. name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
121. PAIN ASSESSMENT/  
 (PAIN SCALE\* or PAIN SCORE\* or ANALGESIA TEST\* or FORMALIN TEST\* or NOCICEPTION TEST\* or PAIN MEASUREMENT\* or PAIN TEST\*).mp. [mp=title, abstract, heading word, drug trade name,
122. original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
123. MCGILL PAIN QUESTIONNAIRE/
124. PAIN RATING\*.ti,ab,kw.
125. PAIN MEASUREMENT/
126. HEALTH STATUS INDICATOR/
127. PATIENT ACUITY/
128. PATIENT ACUIT\*.ti,ab,kw.
129. WORSE THAN DEATH.ti,ab,kw.  
 (HEALTH adj2 DETERIORAT\*).mp. [mp=title, abstract, heading word, drug trade name, original
130. title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
131. APPROPRIATE NEED.ti,ab,kw.
132. "APPROPRIATE USE CRITERIA".ti,ab,kw.
133. PATIENT SUITABILITY.ti,ab,kw.
134. or/110-133
135. BONE MALFORMATION/ or FEMUR MALFORMATION/  
 (BONE ANOMAL\* or BONE DEFORMIT\* or BONE MALALIGNMENT\* or OSSIFICATION
136. DISTURBANCE\* or OSTEOARTICULAR ANOMAL\* or PATHOLOGIC OSSIFICATION\*).ti,ab,kw.
137. PATELLA CHONDROMALACIA/



- (CHONDRIMALACIA PATELLA\* or CHONDRIMATOSIS PATELLAE or CHONDROPATHIA PATELLAE  
138. or PATELLA CHONDROPATHIA or PATELLAR CHONDRIMALACIA or PATELLAR CHONDRIMATOS\*  
or PATELLAR CHONDROPATH\*).ti,ab,kw.
139. OSTEOCHONDRITIS/ or OSTEOCHONDRITIS DISSECANS/  
140. LIGAMENOUS INSTABILITY.mp.  
(KNEE LIGAMENT/ or KNEE LIGAMENT\*.mp.) and INSTAB\*.mp. [mp=title, abstract, heading word,  
141. drug trade name, original title, device manufacturer, drug manufacturer, device trade name,  
keyword heading word, floating subheading word, candidate term word]  
(KNEE INSTABILITY/ or KNEE INSTABIL\*.mp.) and LIGAMENT\*.mp. [mp=title, abstract, heading  
142. word, drug trade name, original title, device manufacturer, drug manufacturer, device trade  
name, keyword heading word, floating subheading word, candidate term word]
143. OSTEOLYSIS/  
144. OSTEOLYSIS.ti,ab,kw.  
145. or/135-144  
146. 98 and 109 and 134 and 145  
147. 98 and 109 and 134 and 145  
148. 85 or 147