

Initial Sample (N = 2032)

- 957 Records retrieved by Medline search
- 1067 Records retrieved by Embase search
- 8 Manual search of bibliographies

344 Excluded after deduplication

Records for titles and abstracts screening (N = 1688)

1609 Excluded on inclusion criteria

- 1517 Excluded on the basis of study objectives and body part affected
- 38 Assessing utilisation without need measure
- 4 Estimating incidence
- 2 Preferred surgical approach
- 5 Patient traits and procedures
- 4 Assessing hospital choice
- 17 Review/Commentaries
- 22 Other

Records for full-text investigation (N = 79)

30 Excluded after full-text perusal

- 8 Need for surgery without analysis of demand [73,14,74,75,76,77,78,79]
- 6 Burden of surgical procedures not measuring need [80,81,82,83,84,3]
- 4 Studies without patients or clinicians as subjects [83,84,85,86]
- 1 Preferences of individuals with chronic pain with no account for need [87]
- 2 Joint replacement without results specific to hip and knee [88,89]
- 2 Elective and non-elective patients without specific elective results [90, 91]
- 1 Health care expenditure without analysis of knee or hip arthroplasty [91]
- 1 The doctor-patient interaction process without its outcome [91]
- 1 Patients' opinions without analysis of willingness to undergo surgery [92]
- 3 Clinicians' opinions without contrast with actual decisions [92,93,94]
- 1 Patient case reports with fewer than 20 participants [95]

Reports included in the review (N = 49)