

Appendix 1: Search terms [posted as supplied by author]

Arthroplasty: (arthroplasty, replacement, hip), (hip prosthesis), (arthroplasty or arthroplasty, replacement), (joint prosthesis), ("prostheses and implant"), (arthroplast\$ or replace\$ or prosthesis\$ or artificial\$)

Arthritis: (osteoarthritis), arthro\$ or arthrosis\$ or osteoarthr\$)

Bearing surface: (surface properties), (prosthesis design), (surface propert\$), (bearing surface\$), (metals or metal\$), (bone cements), (cement\$ or uncement\$), (ceramic\$), (biocompatible materials), (polyethylene), (polyethylene\$), (hydroxyapatites), (hydroxyapatite\$)

Clinical study (RCT or observational): ("Randomized controlled trials" or Randomized controlled trial[pt] or "Random allocation" or "Double blind method" or "Single blind method" or Clinical trial[pt] or "clinical trials" or clinic*[tw] or ((singl* or doubl* or treb* or tripl*)) or Randomly allocated[tw] or allocated random[tw] or large registry[tw] or large cohort[tw]) not (Case report[tw] or (Letter[pt] or Historical article[pt] or Review of reported cases[pt] or review[pt])