

Appendix B: List of excluded articles

| No | Reference | Reason for exclusion |
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| 1. | Ahmad SS, Gantenbein B, Evangelopoulos DS, Schwienbacher S, Schär MO, Kohlhof H, et al. Arthroplasty - Current strategies for the management of knee osteoarthritis. <i>Swiss Medical Weekly</i> . 2015;145. | Not a systematic review |
| 2. | Alcelik I, Sukeik M, Pollock R, Misra A, Shah P, Armstrong P, et al. Comparison of the minimally invasive and standard medial parapatellar approaches for primary total knee arthroplasty. <i>Knee Surg Sports Traumatol Arthrosc</i> . 2012 Dec;20(12):2502-12. Epub 2012/03/16. | Does not compare between conventional and computer-assisted surgery |
| 3. | Alcelik I, Blomfield M, Öztürk C, Soni A, Charity R, Acornley A. A comparison of short term radiological alignment outcomes of the patient specific and standard instrumentation for primary total knee arthroplasty: A systematic review and meta-analysis. <i>Acta orthopaedica et traumatologica turcica</i> . 2017;51(3):215-22. | Does not compare between conventional and computer-assisted surgery |
| 4. | Archibeck MJ, White Jr RE. What's new in adult reconstructive knee surgery. <i>Journal of Bone and Joint Surgery - Series A</i> . 2005;87(7):1656-66. | Not a systematic review |

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| 5. | Archibeck MJ, White RE, Jr. What's new in adult reconstructive knee surgery. <i>J Bone Joint Surg Am.</i> 2004;86-a(8):1839-49. | Not a systematic review |
| 6. | Baumgartner I. 25th World Congress of the International Union of Angiology, IUA 2012. <i>Phlebolympology.</i> 2013;20(1):6. | Not a systematic review |
| 7. | Beal MD, Delagramaticas D, Fitz D. Improving outcomes in total knee arthroplasty-do navigation or customized implants have a role? <i>J Orthop Surg Res.</i> 2016;11(1):60. | Not a systematic review |
| 8. | Beckmann J, Luring C, Tingart M, Anders S, Grifka J, Kock FX. Cup positioning in THA: current status and pitfalls. A systematic evaluation of the literature. <i>Arch Orthop Trauma Surg.</i> 2009;129(7):863-72. | Does not compare between conventional and computer-assisted replacement |
| 9. | Biasca N, Schneider TO, Bungartz M. Minimally Invasive Computer-Navigated Total Knee Arthroplasty. <i>Orthopedic Clinics of North America.</i> 2009;40(4):537-63. | Not a systematic review |
| 10. | Calliess T, Ettinger M, Windhagen H. [Computer-assisted systems in total knee arthroplasty. Useful aid or only additional costs]. <i>Orthopade.</i> 2014;43(6):529-33. | Not a systematic review |

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| 11. | Cavaignac E, Pailhe R, Laumond G, Murgier J, Reina N, Laffosse JM, et al. Evaluation of the accuracy of patient-specific cutting blocks for total knee arthroplasty: a meta-analysis. <i>Int Orthop</i> . 2015;39(8):1541-52. | Does not compare between conventional and computer-assisted replacement |
| 12. | Cheng T, Liu T, Zhang G, Peng X, Zhang X. Does minimally invasive surgery improve short-term recovery in total knee arthroplasty? <i>Clin Orthop Relat Res</i> . 2010;468(6):1635-48. | Does not compare between conventional and computer-assisted replacement |
| 13. | Chiu KH, Cheung KW, Chung KY. Imageless Computer Navigation in Total Knee Arthroplasty-The Pitfalls. <i>Journal of Orthopaedics, Trauma and Rehabilitation</i> . 2011;15(2):40-2. | Not a systematic review |
| 14. | Cho Y, Lee MC. Rotational alignment in total knee arthroplasty. <i>Asia-Pacific Journal of Sports Medicine, Arthroscopy, Rehabilitation and Technology</i> . 2014;1(4):113-8. | Not a systematic review |

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| 15. | Confalonieri N, Biazzo A, Cerveri P, Pullen C, Manzotti A. Navigated "small implants" in knee reconstruction. <i>Knee Surg Sports Traumatol Arthrosc.</i> 2016;24(11):3507-16. | Not a systematic review |
| 16. | Damiano RJ. Robotics in surgery. <i>Current Problems in Surgery.</i> 2004;41(9):752-810. | Not a systematic review |
| 17. | Dattani R, Patnaik S, Kantak A, Tselentakis G. Navigation knee replacement. <i>Int Orthop.</i> 2009;33(1):7-10. | Not a systematic review |
| 18. | Deirmengian CA, Lonner JH. What's new in adult reconstructive knee surgery. <i>J Bone Joint Surg Am.</i> 2009;91(12):3008-18. | Not a systematic review |
| 19. | Deirmengian CA, Lonner JH. What's new in adult reconstructive knee surgery. <i>Journal of Bone and Joint Surgery - Series A.</i> 2013;95(2):184-90. | Not a systematic review |

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| 20. | Desai AS, Dramis A, Kendoff D, Board TN. Critical review of the current practice for computer-assisted navigation in total knee replacement surgery: Cost-effectiveness and clinical outcome. <i>Current Reviews in Musculoskeletal Medicine</i> . 2011;4(1):11-5. | Not a systematic review |
| 21. | Dheerendra S, Khan W, Saeed MZ, Goddard N. Recent developments in total hip replacements: cementation, articulation, minimal-invasion and navigation. <i>Journal of perioperative practice</i> . 2010;20(4):133-8. | Not a systematic review |
| 22. | Ettinger M, Savov P, Calliess T, Windhagen H. Robotics-mechanical bridge between imaging and patient. <i>Der Orthopade</i> . 2018;47(10):820-5. | Not a systematic review |
| 23. | Farr IJ, Barrett D. Optimizing patellofemoral arthroplasty. <i>Knee</i> . 2008;15(5):339-47. | Not a systematic review |
| 24. | Gagliardi AR, Ducey A, Lehoux P, Ross S, Trbovich P, Easty A, et al. Meta-review of the quantity and quality of evidence for knee arthroplasty devices. <i>PLoS ONE</i> . 2016;11(10). | Does not compare between conventional and computer-assisted replacement |

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| 25. | Gandhi R, Smith H, Lefaivre KA, Davey JR, Mahomed NN. Complications after minimally invasive total knee arthroplasty as compared with traditional incision techniques: a meta-analysis. <i>J Arthroplasty</i> . 2011 Jan;26(1):29-35. Epub 2010/02/13. | Does not compare between conventional and computer-assisted replacement |
| 26. | Gidwani S, Fairbank A. The orthopaedic approach to managing osteoarthritis of the knee. <i>British Medical Journal</i> . 2004;329(7476):1220-4. | Not a systematic review |
| 27. | Goradia VK. Computer-assisted and robotic surgery in orthopedics: Where we are in 2014. <i>Sports Medicine and Arthroscopy Review</i> . 2014;22(4):202-5. | Not a systematic review |
| 28. | Gregori A, Holt G. Navigated total knee replacement. A meta-analysis [5]. <i>Journal of Bone and Joint Surgery - Series A</i> . 2007;89(8):1867. | Not a systematic review |
| 29. | Gregori A, Holt G. Re: Navigated total knee replacement. A meta-analysis. <i>J Bone Joint Surg Am</i> . 2007;89(8):1867; author reply -8. | Not a systematic review |

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| 30. | Haaker R. Evolution of total knee arthroplasty. From robotics and navigation to patient-specific instruments. <i>Orthopade</i> . 2016;45(4):280-5. | Not a systematic review |
| 31. | Hamlin B, Barrett M, Jiranek W. The role of computer assisted surgery in minimally invasive joint replacement surgery. <i>Seminars in Arthroplasty</i> . 2005;16(3):239-47. | Not a systematic review |
| 32. | Hernandez D, Garimella R, Eltorai AEM, Daniels AH. Computer-assisted orthopaedic surgery. <i>Orthopaedic Surgery</i> . 2017;9(2):152-8. | Not a systematic review |
| 33. | Higuera CA, Deirmengian C. The new technologies in knee arthroplasty. <i>Journal of Clinical Rheumatology</i> . 2012;18(7):345-8. | Not a systematic review |
| 34. | Huo MH, Stockton KG, Mont MA, Bucholz RW. What's new in total hip arthroplasty. <i>Journal of Bone and Joint Surgery - Series A</i> . 2012;94(18):1721-7. | Not a systematic review |

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| 35. | Jaffe WL, Dundon JM, Camus T. Alignment and Balance Methods in Total Knee Arthroplasty. <i>The Journal of the American Academy of Orthopaedic Surgeons</i> . 2018;26(20):709-16. | Not a systematic review |
| 36. | Jenny JY. The current status of computer-assisted high tibial osteotomy, unicompartmental knee replacement, and revision total knee replacement. <i>Instr Course Lect</i> . 2008;57:721-6. | Not a systematic review |
| 37. | Kanlić EM, Delarosa F, Pirela-Cruz M. Computer assisted orthopaedic surgery -- CAOS. <i>Bosnian journal of basic medical sciences / Udruzenje basicnih medicinskih znanosti = Association of Basic Medical Sciences</i> . 2006;6(1):7-13. | Not a systematic review |
| 38. | Kazanzides P, Mittelstadt BD, Musits BL, Bargar WL, Zuhars JF, Williamson B, et al. An integrated system for cementless hip replacement. <i>IEEE Engineering in Medicine and Biology Magazine</i> . 1995;14(3):307-13. | Not a systematic review |
| 39. | Kienzle ITC, Stulberg SD, Peshkin M, Quaid A, Lea J, Goswami A, et al. Total knee replacement. <i>IEEE Engineering in Medicine and Biology Magazine</i> . 1995;14(3):301-6. | Not a systematic review |

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| 40. | Kuzyk PR, Higgins GA, Tunggal JA, Sellan ME, Waddell JP, Schemitsch EH. Computer navigation vs extramedullary guide for sagittal alignment of tibial components: radiographic study and meta-analysis. <i>J Arthroplasty</i> . 2012;27(4):630-7. | Not a systematic review |
| 41. | Liu X, Li JS, Li G. Application of computer-assisted imaging technology in human musculoskeletal joint research. <i>Journal of Orthopaedic Translation</i> . 2014;2(1):8-15. | Not a systematic review |
| 42. | Lonner JH, Deirmengian CA. What's new in adult reconstructive knee surgery. <i>Journal of Bone and Joint Surgery - Series A</i> . 2007;89 A(12):2828-36. | Not a systematic review |
| 43. | Lüring C, Perlick L, Tingart M, Bächis H, Grifka J. Advances in soft tissue management in total knee arthroplasty. The use of imageless navigation systems. <i>Orthopade</i> . 2006;35(10):1066-72. | Not a systematic review |

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| 44. | MacDessi S, Marimuthu K, Kumar VS, Chen D, Harris IA. Patient-specific cutting guides for total knee arthroplasty 2017; (3). Available from: http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD012589/abstract . | Does not compare between conventional and computer-assisted replacement |
| 45. | Mayman DJ. Computer navigation for total knee arthroplasty: A current perspective. <i>Techniques in Knee Surgery</i> . 2008;7(3):138-43. | Not a systematic review |
| 46. | Mulcahy H, Chew FS. Current concepts in knee replacement: Features and imaging assessment. <i>American Journal of Roentgenology</i> . 2013;201(6):W828-W42. | Not a systematic review |
| 47. | Muller MC, Kabir K, Gravius S, de la Fuente M, Belei P, Strake M, et al. Fluoroscopy-based computer-assisted navigation for implant placement and hip resurfacing arthroplasty in the proximal femur: the zero-dose C-arm navigation approach. <i>Biomed Tech (Berl)</i> . 2012;57(4):209-19. | Does not address total joint replacement |

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| 48. | Nair R, Tripathy G, Deysine GR. Computer navigation systems in unicompartmental knee arthroplasty: a systematic review. <i>Am J Orthop (Belle Mead NJ)</i> . 2014;43(6):256-61. | Does not address total joint replacement |
| 49. | Nizard R. Computer assisted surgery for total knee arthroplasty. <i>Acta Orthopaedica Belgica</i> . 2002;68(3):215-30. | Not a systematic review |
| 50. | O'Connor MI, Kransdorf MJ. Customized knee arthroplasty and the role of preoperative imaging. <i>American Journal of Roentgenology</i> . 2013;201(3):W443-W50. | Not a systematic review |
| 51. | Pibouleau L, Boutron I, Reeves BC, Nizard R, Ravaud P. Applicability and generalisability of published results of randomised controlled trials and non-randomised studies evaluating four orthopaedic procedures: methodological systematic review. <i>Bmj</i> . 2009;339:b4538. | Does not compare between conventional and computer-assisted replacement |

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| 52. | Prakash J, Chand S. "Modern Abbreviated Computer Navigation of the Femur Reduces Blood Loss in Total Knee Arthroplasty". <i>Journal of Arthroplasty</i> . 2016;31(4):925-6. | Not a systematic review |
| 53. | Punwar S, Khan WS, Longo UG. The use of computer navigation in hip arthroplasty: literature review and evidence today. <i>Ortop Traumatol Rehabil</i> . 2011;13(5):431-8. | Not a systematic review |
| 54. | Quack VM, Kathrein S, Rath B, Tingart M, Luring C. Computer-assisted navigation in total knee arthroplasty: a review of literature. <i>Biomed Tech (Berl)</i> . 2012;57(4):269-75. | Not a systematic review |
| 55. | Rambani R, Varghese M. Computer assisted navigation in orthopaedics and trauma surgery. <i>Orthopaedics and Trauma</i> . 2014;28(1):50-7. | Not a systematic review |
| 56. | Rajpaul J, Rasool MN. Leg length correction in computer assisted primary total hip arthroplasty: A collective review of the literature. <i>Journal of Orthopaedics</i> . 2018;15(2):442-6. | Not a systematic review |

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| 57. | Saithna A, Dekker AP. The influence of computer navigation on trainee learning in hip resurfacing arthroplasty. <i>Comput Aided Surg.</i> 2009;14(4-6):117-22. | Does not address total joint replacement |
| 58. | Siddiqi A, Hardaker WM, Eachempati KK, Sheth NP. Advances in Computer-Aided Technology for Total Knee Arthroplasty. <i>Orthopedics.</i> 2017;40(6):338-52. | Not a systematic review |
| 59. | Smith TO, Blake V, Hing CB. Minimally invasive versus conventional exposure for total hip arthroplasty: a systematic review and meta-analysis of clinical and radiological outcomes. <i>Int Orthop.</i> 2011;35(2):173-84. | Does not compare between conventional and computer-assisted replacement |
| 60. | Squire MW. Technologically enhanced total knee replacement: Is the juice worth the squeeze? <i>American Journal of Roentgenology.</i> 2013;201(3):W451-W2. | Not a systematic review |
| 61. | St. Clair SF, Higuera C, Krebs V, Tadross NA, Dumpe J, Barsoum WK. Hip and Knee Arthroplasty in the Geriatric Population. <i>Clinics in Geriatric Medicine.</i> 2006;22(3):515-33. | Not a systematic review |

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| 62. | Traina F, Tassinari E, De Fine M, Bordini B, Toni A. Revision of ceramic hip replacements for fracture of a ceramic component: AAOS exhibit selection. <i>Journal of Bone and Joint Surgery - Series A</i> . 2011;93(24):e147.1-e.9. | Not a systematic review |
| 63. | Ulrich SD, Bonutti PM, Seyler TM, Marker DR, Jones LC, Mont MA. Outcomes-based evaluations supporting computer-assisted surgery and minimally invasive surgery for total hip arthroplasty. <i>Expert Rev Med Devices</i> . 2007;4(6):873-83. | Not a systematic review |
| 64. | Ulrich SD, Mont MA, Bonutti PM, Seyler TM, Marker DR, Jones LC. Scientific evidence supporting computer-assisted surgery and minimally invasive surgery for total knee arthroplasty. <i>Expert Rev Med Devices</i> . 2007 Jul;4(4):497-505. Epub 2007/07/04. | Not a systematic review |
| 65. | Venkatesan M, Mahadevan D, Ashford RU. Computer-assisted navigation in knee arthroplasty: a critical appraisal. <i>J Knee Surg</i> . 2013;26(5):357-61. | Not a systematic review |

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| 66. | Voleti PB, Hamula MJ, Baldwin KD, Lee GC. Current data do not support routine use of patient-specific instrumentation in total knee arthroplasty. <i>J Arthroplasty</i> . 2014;29(9):1709-12. | Does not compare between conventional and computer-assisted replacement |
| 67. | Weber P, Crispin A, Schmidutz F, Utzschneider S, Pietschmann MF, Jansson V, et al. Improved accuracy in computer-assisted unicondylar knee arthroplasty: a meta-analysis. <i>Knee Surgery, Sports Traumatology, Arthroscopy</i> . 2013;21(11):2453-61. | Does not address total joint replacement |
| 68. | Werner SD, Stonestreet M, Jacofsky DJ. Makoplasty and the accuracy and efficacy of robotic-assisted arthroplasty. <i>Surgical technology international</i> . 2014;24:302-6. | Not a systematic review |
| 69. | Wick JY, Zanni GR. Put your right hip in, put your right hip out. <i>Consultant Pharmacist</i> . 2011;26(5):306-14. | Not a systematic review |
| 70. | Williams D, Taylor A, McLardy-Smith P. Revision arthroplasty: An update. <i>Skeletal Radiology</i> . 2009;38(11):1031-6. | Not a systematic review |

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| 71. | Wixson RL. Computer-assisted total hip navigation. Instr Course Lect. 2008;57:707-20. | Not a systematic review |
| 72. | Zanasi S. Innovations in total knee replacement: New trends in operative treatment and changes in peri-operative management. European Orthopaedics and Traumatology. 2011;2(1-2):21-31. | Not a systematic review |
| 73. | Zhang HQ, Gan N, Chen XM. Development of total hip replacements in the coming 10 years. Chinese Journal of Clinical Rehabilitation. 2006;10(41):225-8. | Not a systematic review |