Appendix ~~3~~4. Risk of bias (Quality of studies: representativeness)

Study	Cohort representativeness	Exclusions	Comparability of cohort Age (SD), % female, indication	Outcome assessment Follow up
Hip replacement				
Registry				
Nikolajson et al. 2006[23]	Consecutive patients identified in a national joint registry with 94% of hip replacements recorded. 93.6% response rate to postal questionnaire	Not degenerative hip arthritis Not age 18-90 years Not postero-lateral surgical approach No pre-operative registration of pain Previous or subsequent ipsilateral or contralateral hip operations	71.6 (8.7) % female not reported 100% degenerative hip arthritis, operation through a posterolateral surgical approach	Self-completed 5.9% lost to follow up
Multiple centres				
Jones et al. 2000[24]	Approximately 81% of consecutive patients listed for and who subsequently received joint replacement in health region.	On health region waiting list for less than 7 days Non-elective Hemiarthroplasties, revisions and emergency surgery Not resident in health region Age <40 years Non-English speaking Living in long-term care	68.2 (11.1) 60% 94% OA	Self-completed 5.8% lost to follow up or died
Quintana et al. 2006[30]	Consecutive patients scheduled to undergo total hip replacement in 7 teaching hospitals. 82.4% response	Not on waiting list for THR Severe comorbidities, such as cancer, terminal disease, or psychiatric conditions Main diagnosis not hip OA	69.1 48.3% 100% OA	Self-completed (postal) 25.5% lost to follow up
Single centre				
Nilsdotter et al. 2003[26]	Consecutive patients at single department of orthopaedics	Not primary unilateral THR Not primary OA	71 (range 50-92) 55% 100% OA	Self-completed 5.9% lost to follow up

Singh & Lewallen 2010[27]	Consecutive patients from single centre joint registry sent postal questionnaire or completed at outpatient clinic or telephone	Not alive at follow up Not primary THA	65.0 (13.3) 51% 87% OA	Self-completed (postal or in clinic) or administered on telephone by experienced registry staff 37.7% lost to follow up
Wylde et al. 2011[28]	Consecutive patients on an orthopaedic centre database	Not primary THR	Median 73 range 65-78) 63% Majority OA	Self-completed postal questionnaire 47.6% lost to follow up
Knee replacement				
Registry				
Baker et al. 2007[31]	Random sample of patients in national joint registry	Not primary unilateral TKR No contact details recorded Known to have died	70.7 (range 25-98) 57% (estimate) 96% OA	Self-completed postal questionnaire 14.9% lost to follow up
Multiple centres				
Jones et al. 2000[24]	Approximately 81% of consecutive patients listed for and who subsequently received joint replacement in health region.	On health region waiting list for less than 7 days Non-elective Hemiarthroplasties, revisions and emergency surgery Not resident in health region Age <40 years Non-English speaking Living in long-term care	69.2 (9.2) 59% 94% OA	Self-completed 5.8% lost to follow up or died
Quintana et al. 2006[30]	Consecutive patients scheduled to undergo total knee replacement in 7 teaching hospitals. 83.4% response	Not on waiting list for TKR Severe comorbidities, such as cancer, terminal disease, or psychiatric conditions Main diagnosis not knee OA	71.9 73% 100% OA	Self-completed (postal) 24.1% lost to follow up
Single centre				

Núñez et al. 2007[35]	Consecutive patients at a single tertiary care centre	Not OA grade IV Kellgren and Lawrence criteria grade 4 Did not agree to participate and give informed consent (2 out of 90) Functional illiteracy or severe psychopathology	74.8 (5.6) 81% 100% OA	Self-completed at clinic 5.0% lost to follow up
Stephens 2002[34]	Patients referred for and receiving TKR	Age <50 years Significant cognitive impairment (Telephone Interview for Cognitive Status)	67.4 (8.1) followed up 54% followed up 100% OA	Self-completed (postal) 7.4% lost to follow up
Lundblad et al. 2008[37]	Patients scheduled for TKR at a single hospital	No consent Not Caucasian Not scheduled for TKR for OA	68 (range 40-80) 50.7% 100% OA	Self-completed postal 10.1% lost to follow up
Nilsdotter et al. 2009[36]	Patients on waiting list for knee replacement at a single hospital department of orthopaedics	Not primary TKR Not knee OA	71 (8) 61.8% 100% OA	Self-completed postal 12.7% lost to follow up
Vuorenmaa 2008[38]	Patients referred for and receiving TKR at a single hospital	Age >80 years Knee OA rating not 3–4 by Ahlbäck classification Inflammatory joint disease Early TKR Medical diagnosis of serious disease	70 (5) 86% 100% OA	Self completed VAS pain score at clinic 11.8% lost to follow up
Czurda et al. 2010[32]	Consecutive patients at single centre	Not primary TKR Not degenerative OA Rheumatoid arthritis, post-operative infection and/or if the pain they suffered from at the time of follow-up appeared after falling or another traumatic experience Not performed by experienced surgeon <18 months follow up	75-76 (range 45-96) 76% 100% OA	Telephone interview with patient-reported outcome measure 13.4% lost to follow up
Wylde et al. 2011[28]	Consecutive patients on an orthopaedic centre	Not primary TKR	Median 73 (range 28-96)	Self-completed postal questionnaire

	database		59% Majority OA	45.3% lost to follow up
Single surgeon				
Brander et al. 2003[33]	Consecutive patients treated by single surgeon at single centre	Not degenerative arthritis Not intact cognitive abilities Younger than 18 years Depression or treatment with antidepressant or anxiolytic Concurrent musculoskeletal diagnosis (fibromyalgia, spinal stenosis, significant ipsilateral hip OA) No signed consent form.	66 (10.5) 55.2% 94% OA	Self-completed questionnaire 0% lost to follow up

THR total hip replacement, TKR total knee replacement, OA osteoarthritis, WOMAC Western Ontario and McMaster Universities Arthritis Index, VAS visual analogue scale, KOOS Knee Osteoarthritis Outcome Score