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Appendix 1. Search Strategy

Database(s): Embase 1988 to 2017 Week 41, EBM Reviews - Cochrane Central Register of Controlled Trials September 2017, Ovid MEDLINE(R) Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Search Strategy:

#	Searches	Results
1	exp Arthroplasty, Replacement, Knee/	27026
2	((TKA and knee*) or "knee joint replacement arthroplast*" or "knee replacement arthroplast*" or "total knee arthroplast*" or "total knee joint arthroplast*" or "total knee joint prosthes*" or "total knee joint replacement*" or "total knee prosthes*" or "total knee replacement*").ti,ab,hw,kw.	52524
3	1 or 2	59531
4	(arthrofibros* or "arthro-fibros*" or arthrofibrotic* or "arthro-fibrotic*" or contracture or "flexion contracture" or stiff or stiffening or stiffness).ti,ab,hw,kw.	201662
5	3 and 4	2424
6	limit 5 to english language	2258
7	limit 6 to yr="2002 -Current"	2010
8	((meta adj analys*) or (systematic* adj3 review*) or guideline* or (case adj3 report)).mp,pt.	3725351
9	7 not 8	1732
10	limit 9 to ("review" or "review literature") [Limit not valid in Embase,Ovid MEDLINE(R),Ovid MEDLINE(R) Daily Update,Ovid MEDLINE(R) In-Process,Ovid MEDLINE(R) Publisher; records were retained]	115
11	9 not 10	1617
12	limit 11 to (editorial or erratum or note or addresses or autobiography or bibliography or biography or blogs or comment or dictionary or directory or interactive tutorial or interview or lectures or legal cases or legislation or news or newspaper article or overall or patient education handout or periodical index or portraits or published erratum or video-audio media or webcasts) [Limit not valid in Embase,CCTR,Ovid MEDLINE(R),Ovid MEDLINE(R) Daily Update,Ovid MEDLINE(R) In-Process,Ovid MEDLINE(R) Publisher; records were retained]	15
13	11 not 12	1602
14	limit 13 to ("all adult (19 plus years)" or "young adult (19 to 24 years)" or "adult (19 to 44 years)" or "young adult and adult (19-24 and 19-44)" or "middle age (45 to 64 years)" or "middle aged (45 plus years)" or "all aged (65 and over)" or "aged (80 and over)") [Limit not valid in Embase,CCTR; records were retained]	1392

15	limit 14 to (adult <18 to 64 years> or aged <65+ years>) [Limit not valid in CCTR,Ovid MEDLINE(R),Ovid MEDLINE(R) Daily Update,Ovid MEDLINE(R) In-Process,Ovid MEDLINE(R) Publisher; records were retained]	1071
16	limit 13 to ("all infant (birth to 23 months)" or "all child (0 to 18 years)" or "newborn infant (birth to 1 month)" or "infant (1 to 23 months)" or "preschool child (2 to 5 years)" or "child (6 to 12 years)" or "adolescent (13 to 18 years)") [Limit not valid in Embase,CCTR; records were retained]	940
17	limit 16 to (embryo or infant or child or preschool child <1 to 6 years> or school child <7 to 12 years> or adolescent <13 to 17 years>) [Limit not valid in CCTR,Ovid MEDLINE(R),Ovid MEDLINE(R) Daily Update,Ovid MEDLINE(R) In-Process,Ovid MEDLINE(R) Publisher; records were retained]	70
18	17 not 15	2
19	13 not 18	1600
20	remove duplicates from 19	1039

Scopus

1	TITLE-ABS-KEY((TKA and knee*) OR "knee joint replacement arthroplast*" OR "knee replacement arthroplast*" OR "total knee arthroplast*" OR "total knee joint arthroplast*" OR "total knee joint prosthes*" OR "total knee joint replacement*" OR "total knee prosthes*" OR "total knee replacement*")
2	TITLE-ABS-KEY(arthrofibros* OR "arthro-fibros*" OR arthrofibrotic* OR "arthro-fibrotic*" OR contracture OR "flexion contracture" OR stiff OR stiffening OR stiffness)
3	PUBYEAR AFT 2001 AND LANGUAGE(english)
4	1 and 2 and 3
5	TITLE-ABS-KEY((meta W/1 analys*) or (systematic* W/3 review*) or guideline* or (case W/3 report) or review)
6	4 and not 5
7	TITLE-ABS-KEY(newborn* or neonat* or infant* or toddler* or child* or adolescent* or paediatric* or pediatric* or girl or girls or boy or boys or teen or teens or teenager* or preschooler* or "pre-schooler*" or preteen or preteens or "pre-teen" or "pre-teens" or youth or youths) AND NOT TITLE-ABS-KEY(adult or adults or "middle age" or "middle aged" OR elderly OR geriatric* OR "old people" OR "old person*" OR "older people" OR "older person*" OR "very old")
8	6 and not 7
9	DOCTYPE(ed) OR DOCTYPE(bk) OR DOCTYPE(er) OR DOCTYPE(no) OR DOCTYPE(sh)
10	8 and not 9
11	PMID(0*) OR PMID(1*) OR PMID(2*) OR PMID(3*) OR PMID(4*) OR PMID(5*) OR PMID(6*) OR PMID(7*) OR PMID(8*) OR PMID(9*)
12	10 and not 11

Appendix 2. Methodological Quality of Included Studies

Study ID	Author, Year	Selection of Cohort/Patients	Adjusting for Confounders	Outcome ascertainment was adequate?	Adequate Follow up period	Attrition Bias or lost to follow-up
1	Abdel et al. 2017[1]	Non-consecutive (registry data 2000-2012, "cemented, modular metal-backed and posterior-stabilized with the patella resurfaced")	No	Yes	Yes	NR
2	Anania et al. 2013[4]	Non-consecutive ("primary TKA surgery between January 2006 and April 2011 by a single surgeon")	Yes	Yes	Yes	Yes
3	Barnes et al. 2013[44]	Consecutive ("all TKAs performed by a single surgeon between September 2005 and April 2008")	No	Yes	Yes	NR
4	Bawa et al. 2013[27]	Non-consecutive	No	Yes	Yes	Yes
5	Bistolfi et al. 2013[53]	Consecutive ("January 1998 to September 2002, 200 consecutive knees in 163 patients"	No	Yes	Yes	Yes
6	Boldt et al. 2006[20]	Consecutive ("mobile-bearing TKAs performed at one centre from 1988 until 1999")	No	Yes	Yes	Yes
7	Cates et al. 2009[28]	Consecutive ("From 2000 to January 2005)	Yes	Yes	Yes	Yes
8	Chalidis et al. 2011[45]	Consecutive ("Between 1994 and 2000…two senior surgeons")	No	Yes	Yes	Yes
9	Choi et al. 2015[46]	NR	No	Yes	Yes	Yes
10	Curtin et al. 2014[19]	Consecutive ("January 1998 to May 2005… additional consecutive patients (Group B) from June 2005 to December 2007")	Yes	Yes	Yes	NR
11	Dalury et al. 2003[29]	NR	Yes	Yes	Yes	NR
12	Dzaja et al. 2015[12]	NR	No	Yes	Yes	Yes
13	Everts et al. 2007[43]	Consecutive	No	Yes	Yes	NR
14	Fosco et al. 2011[30]	NR	No	Yes	Yes	NR
15	Gandhi et al. 2006[31]	NR ("5 surgeons from September 1998 to May 2002…")	No	Yes	Yes	NR
16	Geller et al. 2017[47]	NR ("All the patients included in the study were operated by a single surgeon between November 2005 and September 2015."	Yes	Yes	Yes	Yes
17	Harvie et al. 2013[48]	Consecutive ("281 consecutive Duracon (Stryker Corp, Kalamazoo, Michigan, USA) TKAs")	No	Yes	Yes	NR

18	Hommel et al. 2017[39]	Consecutive ("Between June 2011 and December 2013… TKA for osteoarthritis of the knee at our medical center were consecutively enrolled.")	No	Yes	Yes	Yes
19	Husted et al. 2015[32]	Consecutive ("primary unilateral TKA from January 10, 2010 to May 31, 2012.")	Yes	Yes	Yes	Yes
20	Ipach et al. 2011[33]	NR	No	Yes	Yes	NR
21	Kim et al. 2004[16]	NR	No	Yes	Yes	NR
22	Lavernia et al. 2008[34]	NR	Yes	Yes	Yes	NR
23	McAllister et al. 2008[49]	Consecutive ("performed 200 consecutive primary TKAs (174 patients) over a 2-year period.")	No	Yes	Yes	Yes
24	McGinn et al. 2016[50]	Consecutive	Yes	Yes	Yes	Yes
25	Mitsuyasu et al. 2011[54]	NR	Yes	Yes	Yes	NR
26	Quah et al. 2012[35]	NR	No	Yes	Yes	Yes
27	Ritter et al. 2007[55]	Non-consecutive	Yes	Yes	Yes	NR
28	Rubinstein et al. 2010[18]	Non-consecutive	No	Yes	Yes	NR
29	Sharma et al. 2008[51]	NR	Yes	Yes	Yes	No
30	Smith et al. 2016[36]	NR	Yes	Yes	Yes	NR
31	Vanlommel et al. 2016[17]	Non-consecutive	No	Yes	Yes	Yes
32	Walton et al. 2005[40]	Consecutive ("all primary total knee replacements (TKR) undertaken in one establishment from January 1993 to December 2003 by a group of four surgeons.")	Yes	Yes	Yes	NR
33	White et al. 2016[52]	Consecutive ("between January 2010 and November 2012.")	Yes	Yes	Yes	NR
34	Yercan et al. 2006[37]	NR	No	Yes	Yes	Yes
35	Yoo et al. 2015[38]	Non-consecutive	No	Yes	Yes	Yes

*NR = not reported

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