

Appendix 1 Search strategy

PubMed	Search Query	Results
#1	"Robotic Surgical Procedures"[Mesh]	13487
#2	"Robotics"[Mesh]	36619
#3	robot[Title/Abstract]	25938
#4	robotic[Title/Abstract]	38012
#5	robotics[Title/Abstract]	11147
#6	robotic-assisted[Title/Abstract]	6563
#7	robotic-arm[Title/Abstract]	1332
#8	robotic-arm assisted[Title/Abstract]	167
#9	MAKO[Title/Abstract]	216
#10	#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10	63889
#11	revision total hip arthroplasty[Title/Abstract]	1625
#12	RTHA[Title/Abstract]	142
#13	revision total hip replacement[Title/Abstract]	196
#14	RTHR[Title/Abstract]	17
#15	revision total knee arthroplasty[Title/Abstract]	1261
#16	RTKA[Title/Abstract]	214
#17	revision total knee replacement[Title/Abstract]	117
#18	RTKR[Title/Abstract]	10
#19	"Arthroplasty, Replacement, Hip"[Mesh]	32485
#20	"Arthroplasty, Replacement, Knee"[Mesh]	29442
#21	Knee Arthroplasty[Title/Abstract]	29127
#22	Knee Replacement[Title/Abstract]	10127
#23	Hip Arthroplasty[Title/Abstract]	27394
#24	Hip Replacement[Title/Abstract]	12403
#25	Joint Arthroplasty[Title/Abstract]	5903
#26	Joint Replacement[Title/Abstract]	8332
#27	#19 OR #20 OR #21 OR #22 OR #23 OR #24 OR #25 OR #26	88227
#28	Revision[Title/Abstract]	90488
#29	#27 AND #28	18194
#30	#11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #29	18254
#31	#10 AND #30	179

Embase	Search Query	Results
#1	'robot'/exp	7646
#2	'robotic surgical system'/exp	4503
#3	'robotics'/exp	44424
#4	robot:ta,ab	33068
#5	robotic:ta,ab	54685
#6	robotics:ta,ab	8296
#7	'robotic assisted':ta,ab	11390

#8	'robotic-arm assisted':ta,ab	153
#9	mako:ta,ab	211
#10	'robotic arm':ta,ab	1810
#11	#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10	92955
#12	'revision total hip arthroplasty':ta,ab	1163
#13	'rtha':ta,ab	166
#14	'revision total hip replacement':ta,ab	156
#15	'rthr':ta,ab	24
#16	'revision total knee arthroplasty':ta,ab	848
#17	'rtka':ta,ab	224
#18	'revision total knee replacement':ta,ab	83
#19	'rtkr':ta,ab	23
#20	'hip arthroplasty'/exp	33491
#21	'knee arthroplasty'/exp	53495
#22	'knee replacement'/exp	38773
#23	'hip replacement'/exp	13601
#24	'knee arthroplasty':ta,ab	27856
#25	'knee replacement':ta,ab	11049
#26	'knee replacement':ta,ab	11049
#27	'hip arthroplasty':ta,ab	25458
#28	'hip replacement':ta,ab	12653
#29	'joint arthroplasty':ta,ab	5172
#30	'joint replacement':ta,ab	9509
#31	#20 OR #21 OR #22 OR #23 OR #24 OR #25 OR #26 OR #27 OR #28 OR #29 OR #30	107376
#32	revision:ta,ab	106836
#33	#31 AND #32	17784
#34	#12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #33	17867
#35	#11 AND #34	170

Cochrane	Search Query	Results
#1	MeSH descriptor: [Robotics] explode all trees	1097
#2	MeSH descriptor: [Robotic Surgical Procedures] explode all trees	400
#3	(robot):ti,ab,kw (Word variations have been searched)	5932
#4	(robotic):ti,ab,kw	3883
#5	(robotics):ti,ab,kw	1692
#6	(robotic-assisted):ti,ab,kw	945
#7	(robotic-arm assisted):ti,ab,kw	78
#8	(robotic-arm):ti,ab,kw	117
#9	(MAKO):ti,ab,kw	27
#10	#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9	5937
#11	(revision total hip arthroplasty):ti,ab,kw	382
#12	(RTHA):ti,ab,kw	3

#13	(revision total hip replacement):ti,ab,kw	295
#14	(RTHR):ti,ab,kw	1
#15	(revision total knee arthroplasty):ti,ab,kw	364
#16	(RTKA):ti,ab,kw	12
#17	(revision total knee replacement):ti,ab,kw	278
#18	(RTKR):ti,ab,kw	1
#19	MeSH descriptor: [Arthroplasty, Replacement, Knee] explode all trees	2898
#20	MeSH descriptor: [Arthroplasty, Replacement, Hip] explode all trees	2080
#21	(Knee Arthroplasty):ti,ab,kw (Word variations have been searched)	7970
#22	(Knee Replacement):ti,ab,kw	6078
#23	(Hip Arthroplasty):ti,ab,kw	5600
#24	(Hip Replacement):ti,ab,kw	5469
#25	(Joint Arthroplasty):ti,ab,kw	4185
#26	(Joint Replacement):ti,ab,kw	3769
#27	#19 or #20 or #21 or #22 or #23 or #24 or #25 or #26	16115
#28	Revision:ti,ab,kw	12072
#29	#27 and #28	957
#30	#11 or #12 or #13 or #14 or #15 or #16 or #17 or #18	740
#31	#29 or #30	960
#32	#10 and #31	24
