Supplementary Table I. Ovid MEDLINE® in-process and other non-indexed citations and Ovid MEDLINE® 1946 to present.

S/N	Search terms	Parameter	Hits
1	exp rheumatoid arthritis/	Disease	95,935
2	rheumatoid arthritis.tw.		91,923
3	((rheumatoid or reumatoid or revmatoid or rheumatic or reumatic or revmatic or rheumat$ or reumat$ or revmarthrit$) adj3 (arthrit$ or artrit$ or diseas$ or condition$ or nodule$)).tw.		101,137
4	(felty$ adj2 syndrome).tw.		693
5	(caplan$ adj2 syndrome).tw.		116
6	(sjogren$ adj2 syndrome).tw.		11,842
7	(sicca adj2 syndrome).tw.		773
8	still$ disease.tw.		1709
9	or/1-8		139,407
10	(Abatacept or orencia or ctla4 ig).mp	Intervention	2749
11	(Adalimumab or Humira or Hum?ra).mp.		4501
12	(certolizumab or CDP870 or CDP 870 or PHA738144 or PHA 738144 or Cimzia).mp.		598
13	(certolizumab adj2 pegol).mp.		471
14	(Etanercept or Enbrel or ETA or ETN).mp.		17,263
15	(golimumab or CNTO 148 or CNTO148 or Simponi).mp.		406
16	(Infliximab or Remicade or Avakine).mp.		9843
17	(Tocilizumab or actemra or atlizumab).mp.		13,601
18	(Rituximab or rituxan or Mabthera).mp.		1115
19	(Ustekinumab or stelara or CNTO 1275 or CNTO-1275).mp.		524
20	DMARD$.mp.		2742
21	gold.mp.		107,327
22	hydroxychloroquine.mp.		3105
23	leflunomide.mp.		1857
24	methotrexate.mp.		44,509
25	penicillamine.mp.		10,912
26	sulfasalazine.mp.		4944
27	or/10-26		209,575
28	9 and 27		18,635
29	(((“sharp” or “heijde” or “van der heijde” or “larsen”) and (“score” or “scoring” or “scores” or “scale”)) or ((“damage” and “radiograph$”) or “radiologic$” or “progression” or “erosion$” or “joint space”)).tw.	Outcomes	489,368
30	28 and 29		1955
31	randomized controlled trial.pt.	Study design	401,556
32	controlled clinical trial.pt.		90,822
33	randomi?ed.ab.		385,775
34	placebo.tw.		136,359
35	drug therapy.fs.		1,789,870
36	clinical trials as topic.sh.		176,781
37	randomly.ab.		230,597
38	trial.ab.		336,214
39	groups.ab.		1,448,661
40	(crossover or cross-over or cross over).tw.		64,276
41	((singl$ or double$ or triple$ or treble$) and (blind$ or mask$)).tw,sh.		159,960
42	(case control or case-control).ti,ab.		85,986
43	((follow up or follow-up) adj (study or studies)).ti,ab.		39,602
44	(Longitudinal or retrospective or prospective or comparative or cohort or cross sectional or cross-sectional).ti,ab.		1,351,520
45	((observ$ or registry) adj3 (study or studies)).ti,ab.		106,302
46	or/31-45		4,672,267
47	(animals not (humans and animals)).sh.		4,004,891
48	46 not 47		4,084,952
49	30 and 48		1650
50	limit 49 to English language		**1398**

Supplementary Table II. Embase® 1988 to 2015 Week 3.

S/N	Search terms	Parameter	Hits
1	exp rheumatoid arthritis/	Disease	115,964
2	((rheumatoid or reumatoid or revmatoid or rheumatic or reumatic or revmatic or rheumat$ or reumat$ or revmarthrit$) adj3 (arthrit$ or artrit$ or diseas$ or condition$ or nodule$)).tw.		103,828
3	(felty$ adj2 syndrome).tw.		386
4	(caplan$ adj2 syndrome).tw.		42
5	(sjogren$ adj2 syndrome).tw		12,004
6	(sicca adj2 syndrome).tw.		734
7	still$ disease.tw		1811
8	or/1-7		150,623
9	exp abatacept/ or exp adalimumab/ or exp certolizumab pegol/ or exp etanercept/ or exp golimumab/ or exp infliximab/ or exp rituximab/ or exp tocilizumab/ or exp ustekinumab	Intervention	83,658
10	(Abatacept or orencia or ctla4 ig).mp.		5473
11	(Adalimumab or Humira or Hum?ra).mp.		17,099
12	(certolizumab or CDP870 or CDP 870 or PHA738144 or PHA 738144 or Cimzia).mp.		3384
13	(certolizumab adj2 pegol).mp.		3049
14	(Etanercept or Enbrel or ETA or ETN).mp.		29,146
15	(golimumab or CNTO 148 or CNTO148 or Simponi).mp.		2495
16	(Infliximab or Remicade or Avakine).mp.		31,318
17	(Rituximab or rituxan or Mabthera).mp.		43,093
18	(Tocilizumab or actemra or atlizumab).mp.		4406
19	(Ustekinumab or stelara or CNTO 1275 or CNTO-1275).mp.		1980
20	exp penicillamine/ or exp gold/ or exp antirheumatic agent/ or exp leflunomide/ or exp methotrexate/ or exp salazosulfapyridine/ or auranofin/ or exp hydroxychloroquine/		477,789
21	auranofin.mp.		1912
22	DMARD.mp.		3746
23	gold.mp.		125,269
24	hydroxychloroquine.mp.		14,264
25	leflunomide.mp.		8066
26	methotrexate.mp.		114,141
27	penicillamine.mp.		13,251
28	salazosulfapyridine.mp.		17,515
29	or/9-28		611,415
30	8 and 29		50,856
31	((((“sharp” or “heijde” or “van der heijde” or “larsen”) and (“score” or “scoring” or “scores” or “scale”)) or ((“damage” and “radiograph*”) or “radiologic*” or “progression” or “erosion*” or “joint space”)).tw.	Outcomes	574,962
32	30 and 31		5345
33	(random$ or placebo$).ti,ab	Study design	946,307
34	clinical trial/		791,848
35	random$.tw.		879,921
36	randomized controlled trial/		340,282
37	trial$.tw.		789,789
38	controlled study/		4,407,623
39	double blind procedure/		109,470
40	placebo$.tw.		188,209
41	(singl$ adj (blind$ or mask$)).tw.		14,128
42	(crossover$ or cross-over$).ti,ab.		63,406
43	(double$ adj (blind$ or mask$)).tw.		130,046
44	Crossover Procedure/		40,750
45	Single Blind Procedure/		19,125
46	((triple$ or treble$) adj (blind$ or mask$)).tw.		420
47	(Longitudinal or retrospective or prospective or comparative or cohort or cross sectional or cross-sectional).ti,ab.		1,589,551
48	((observ$ or registry) adj3 (study or studies)).ti,ab.		137,053
49	(case control or case-control).ti,ab.		94,143
50	or/33-49		6,547,318
51	(animal$ not human$).sh,hw.		2,575,972
52	50 not 51		5,115,898
53	32 and 52		3293
54	Limit 53 to English language		**3105**

Supplementary Table III. Jadad scores for the 34 studies identified.

Author name	Randomisation	Randomisation method	Double-blind	Double-blind method	Withdrawals and drop-outs
Bathon *et al*., 2000	1	0	0	0	1
van der Heijde *et al*., 2010	1	0	1	0	1
Bathon *et al*., 2011	1	0	1	0	1
Klareskog, *et al*. 2004	1	1	1	1	1
Kremer *et al*., 2006	1	1	1	0	1
Takeuchi *et al*., 2014	1	0	1	0	1
Quinn *et al*., 2005	1	0	1	1	1
Dougados *et al*., 2014	1	0	1	0	1
Emery *et al*., 2008	1	0	1	0	1
Schiff *et al*., 2014	1	0	0	0	1
St Clair *et al*., 2004	1	1	1	0	1
Kameda *et al*., 2011	1	1	0	0	1
Tak *et al*. 2011	1	1	1	0	1
Cohen *et al*., 2006	1	1	1	1	1
Emery *et al*., 2013	1	0	1	1	1
Emery *et al*., 2011	1	0	1	0	1
Kremer *et al*., 2011	1	0	1	0	1
Furst *et al*., 2007	1	0	0	0	1
Kavanaugh *et al*., 2013	1	1	1	0	1
Keystone *et al*., 2008	1	0	1	0	1
Keystone *et al*., 2011	1	0	1	1	1
Kivitz *et al*., 2014	1	0	1	1	0
Lipsky *et al*., 2000	1	0	1	0	1
Machado *et al*., 2014	1	0	0	0	1
Migliore *et al*., 2012	1	0	1	0	1
Moreland *et al*., 2012	1	1	1	1	1
Nishimoto *et al*., 2007	1	1	0	0	1
Smolen *et al*., 2009	1	0	1	0	1
Takeuchi *et al*., 2013	1	1	1	0	1
Tanaka *et al*., 2012	1	0	1	1	1
Taylor *et al*., 2006	1	1	1	0	1
Weinblatt *et al*., 2014	1	1	1	0	1
Yamamoto *et al*., 2014	1	1	1	1	1
Yamamoto *et al*., 2014b	1	1	1	1	1

Supplementary Table IV. Quality assessment of randomised controlled trials.

Author name	Randomisation	Concealment	Baseline characteristics	Blinding	Withdrawals	Outcome selection and reporting	Statistical analysis
Bathon *et al*., 2000	Low risk	Unclear	Low risk	High-risk	Low risk	Low risk	Low risk
van der Heijde *et al*., 2010	Low risk	Unclear	Low risk	Unclear	Low risk	Low risk	Low risk
Bathon *et al*., 2011	Low risk	Unclear	Low risk	Unclear	Low risk	Low risk	Low risk
Klareskog, *et al*., 2004	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Kremer *et al*., 2006	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Takeuchi *et al*., 2014	Low risk	Unclear	Low risk	Unclear	Low risk	Low risk	Low risk
Quinn *et al*., 2005	Low risk	Unclear	Low risk	Low risk	Low risk	Low risk	Low risk
Dougados *et al*., 2014	Low risk	Unclear	Low risk	Unclear	Low risk	Low risk	Low risk
Emery *et al*., 2008	Low risk	Unclear	Low risk	Unclear	Low risk	High-risk	Low risk
Schiff *et al*., 2014	Low risk	Unclear	Low risk	High-risk	Low risk	Low risk	Low risk
St Clair *et al*., 2004	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Kameda *et al*., 2011	Low risk	Low risk	Low risk	High-risk	Low risk	Low risk	Low risk
Tak *et al*., 2011	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Cohen *et al*., 2006	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Emery *et al*., 2013	Low risk	Unclear	Low risk	Low risk	Low risk	Low risk	Low risk
Emery *et al*., 2011	Low risk	Unclear	Low risk	Low risk	Low risk	Low risk	Low risk
Kremer *et al*., 2011b	Low risk	Unclear	Low risk	Low risk	Low risk	Low risk	Low risk
Furst *et al*., 2007	Low risk	Unclear	Low risk	High-risk	Low risk	Low risk	Low risk
Kavanaugh *et al*., 2013	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Keystone *et al*., 2008	Low risk	Unclear	Low risk	Low risk	Low risk	Low risk	Low risk
Keystone *et al*., 2004	Low risk	Unclear	Low risk	Low risk	Low risk	Low risk	Low risk
Kivitz *et al*., 2014	Low risk	Unclear	Low risk	Low risk	Low risk	Low risk	Low risk
Lipsky *et al*., 2000	Low risk	Unclear	Low risk	Unclear	Low risk	Low risk	Low risk
Machado *et al*., 2014	Low risk	Unclear	Low risk	High-risk	Low risk	Low risk	Low risk
Migliore *et al*., 2012	Low risk	Unclear	Low risk	Unclear	Low risk	Low risk	Low risk
Moreland *et al*., 2012	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Nishimoto *et al*., 2007	Low risk	Low risk	Low risk	High-risk	Low risk	Low risk	Low risk
Smolen *et al*., 2009	Low risk	Unclear	Low risk	Unclear	Low risk	Low risk	Low risk
Takeuchi *et al*., 2013	Low risk	Low risk	Low risk	Unclear	Low risk	Low risk	Low risk
Tanaka *et al*., 2012b	Low risk	Unclear	Low risk	Low risk	Low risk	Low risk	Low risk
Taylor *et al*., 2006	Low risk	Low risk	Low risk	Unclear	Low risk	Low risk	Low risk
Weinblatt *et al*., 2014	Low risk	Low risk	Low risk	Unclear	Low risk	Low risk	Low risk
Yamamoto *et al*., 2014	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Yamamoto *et al*., 2014b	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk