Summary of findings table

Abatacept (2 and 10 mg/kg) +DMARDs/biologic versus placebo + DMARDs/biologic for rheumatoid arthritis						
Patient or Population: patients with rheumatoid arthritis Settings: International; clinic/hospital Intervention: Abatacept (2 and 10 mg/kg) + DMARDs/biologic Comparison: Placebo +DMARDs/biologic						
Outcomes	Placebo +DMARDs/ biologic	Abatacept (2 and 10 mg/kg) +DMARDs/ biologic	Relative Effect (95% CI)	No. of Partic-ipants (Studies)	Quality of Evidence (GRADE)	Comments (95% CI)
ACR 50% improvement Follow-up: 12 months	**168 per 1000**	**371 per 1000** (291 to 474)	**RR 2.21** (1.73 to 2.82)	993 (3 studies)	**Moderate** [1,2,3]	**Absolute difference= 21%** (16% to 27%). NNT=5 (4 to 7)[4] Relative percent change=121% (73% to 182%).
Pain measured at end of study on a 100 mm visual analog scale. Scale from 0 (better) to 100 (worse). Follow-up: 12 months.	The mean pain in the control group was **49.24 mm**	The mean pain in the intervention group was **10.71 lower** (12.97 to 8.45)		1425 (1 study[5])	**Moderate** [2]	**Absolute difference= -11%** (-13% to -8.5%). NNT=5 (4 to 6)[4] Relative percent change=-18% (-22% to -14%).
Improvement in physical function (HAQ: greater than 0.3 increase from baseline, 0-3 scale) Follow-up: 12 months	**393 per 1000**	**637 per 1000** (531 to 766)	**RR 1.62** (1.35 to 1.95)	638 (1 study[6])	**Moderate** [1]	**Absolute difference= 24%** (16% to 32%). NNT=5 (4 to 7)[4] Relative percent change=62% (35% to 195%).

Achievement of low disease activity state (DAS 28 less than 3.2, scale 0-10) Follow-up: 12 months	**98 per 1000**	**424 per 1000** (278 to 646)	**RR 4.33** (2.84 to 6.59)	683 (1 study[6])	**Moderate** [1]	**Absolute difference= 33%** (26% to 39%). NNT=4 (3 to 5)[4] Relative percent change=333% (184% to 559%).
Total serious adverse events Follow-up: 6 to 12 months	**121 per 1000**	**127 per 1000** (105 to 155)	**RR 1.05** (0.87 to 1.28)	3151 (6 studies)	**Moderate** [1,2,3,7]	**Absolute difference= 1%** (-2% to 3%). NNT=n/a[4] Relative percent change=5% (-14% to 29%).
Long-term serious adverse events Follow-up: 2 years	See comment	See comment	Not estimable	950 (2 studies[9])	**Low**[8]	Number of patients with SAE: Genovese 2005: 103/357; 23.4 SAE/100 patient-years; 70% completed the LTE. Kremer 2006: 149/593; 16.3 SAE/100 patient-years; 90.5% completed the LTE

CI: Confidence interval; **RR:** Risk ratio; **NNT**=number needed to treat; **SAE**=serious adverse event

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

Footnotes

[1] Kremer 2006: Intention to treat analysis not performed. 9 patients in abatacept group and 5 in placebo group excluded from analysis.
[2] Weinblatt 2006: 15 people randomized were not treated and not included in analysis
[3] Kremer 2003: Risk of attrition bias - less than 80% completion rate in treatment group at 12 months
[4] NOTE: Number needed to treat (NNT)=n/a when result is not statistically significant. NNT for dichotomous outcomes calculated using Cates NNT calculator (http://www.nntonline.net/visualrx/). NNT for continuous outcomes calculated using Wells Calculator (CMSG editorial office).

[5] Outcome based on Weinblatt 2006
[6] Outcome based on Kremer 2006
[7] Weinblatt 2007: Risk of attrition bias - less than 80% completion rate in the treatment group at 12 months
[8] Long-term serious adverse events based on observational data. Two RCTs had a long-term extension (LTE) phase in which people in the placebo group during the RCT switched to abatacept for the LTE.
[9] Based on 2 long-term extension studies (LTE) of RCTs. Participants on placebo in the RCT switched to abatacept treatment for the LTE.