Review

Treatment modifying factors of biologics for psoriatic arthritis: a systematic review and Bayesian meta-regression

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Appendices to this paper containing supplementary material

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APPENDICES

Appendix 1: Literature search strategies

Supplementary Table 1: Medline and EMBASE search strategy

No.	Term
1.	psoriatic arthritis/
2.	(psoria* adj2 (arthrit* or arthropath*)).ti,ab.
3.	1 or 2
4.	Etanercept/
5.	(etanercept or Enbrel).ti,ab.
6.	infliximab/
7.	(infliximab or remicade).ti,ab.
8.	adalimumab/
9.	(adalimumab or humira).ti,ab.
10.	golimumab/
11.	(golimumab or simponi).ti,ab.
12.	certolizumab pegol/ or certolizumab/
13.	(certolizumab* or certolizumab pegol or cimzia).ti,ab.
14.	tocilizumab/
15.	(tocilizumab or actemra).ti,ab.
16.	anakinra/
17.	(anakinra or kineret).ti,ab.
18.	abatacept/
19.	(abatacept or orencia).ti,ab.
20.	rituximab/
21.	(rituximab or rituxan).ti,ab.
22.	ustekinumab/
23.	(ustekinumab or stelara).ti,ab.
24.	secukinumab/

No.	Term
25.	(secukinumab or AIN457).ti,ab.
26.	(AIN adj2 457).ti,ab.
27.	or/4-26
28.	3 and 27
29.	limit 28 to human

Supplementary Table 2: Cochrane Central search strategy

No.	Term
1.	MeSH descriptor Arthritis, Psoriatic, this term only
2.	(psoria* NEAR/2 arthrit*)
3.	(psoria* NEAR/2 arthropath*)
4.	(#1 OR #2 OR #3)
5.	(etanercept or enbrel):ti,ab,kw.
6.	(infliximab or remicade):ti,ab,kw.
7.	(adalimumab or humira):ti,ab,kw.
8.	(golimumab or simponi):ti,ab,kw.
9.	(certolizumab or certolizumab pegol or cimzia):ti,ab,kw.
10.	(tocilizumab or actemra):ti,ab,kw.
11.	(anakinra or kineret):ti,ab,kw.
12.	(abatacept or orencia):ti,ab,kw.
13.	(rituximab or rituxan):ti,ab,kw.
14.	(ustekinumab or stelara):ti,ab,kw.
15.	(secukinumab or AIN457):ti,ab,kw.
16.	(AIN NEAR/2 457)

No.	Term
17.	(#5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16)
18.	(#4 AND #17)

Appendix 2: Risk-of-bias assessment

Supplementary Table 3: Risk-of-bias summary: review of the authors' judgments for each included study (15)

Study	Sequence generation	Allocation concealment	Blinding participants, personnel and outcome assessors	Incomplete outcome data addressed	Free of selective reporting	Free of other bias
ADEPT (9, 39)	Unclear	Unclear	Low	Low	Low	Low
Genovese et al 2007 (26)	Low	Low	Low	Low	Low	Low
GO-REVEAL (8), (49)	Low	Low	Low	Low	Low	Low
IMPACT (24)	Unclear	Unclear	Low	Low	Unclear	Low
IMPACT 2 (25), (7)	Low	Low	Low	Low	Unclear	Low
McInnes et al 2014 (28)	Low	Low	Low	Low	Low	Low
Mease et al 2000 (30)	Unclear	Low	Unclear	Low	Unclear	Low
Mease et al 2004 (10), (50)	Unclear	Low	Unclear	Low	Low	Unclear
Mease et al 2011 (34)	Unclear	Unclear	Low	Low	Low	Low
PSUMMIT 1 (27)	Low	Low	Low	Low	Low	Low
PSUMMIT 2 (31)	Low	Low	Low	Low	Low	Low

RAPID-PsA (29), (51)	Low	Low	Low	Low	Low	Low

Appendix 3: Study baseline characteristics

Supplementary Table 4: Patient demographics

Primary Author	Intervention	N	Age, mean (SD)	Males, n (%)	White, n (%)	Psoriasis duration, mean (SD)	PsA duration, mean (SD)	DIP, n (%)	AM, n (%)	APA, n (%)	PAA, n (%)	Spondylitis, n (%)	Prior anti-TNF use, n (%)
Antoni et al 2005 (IMPACT 2) (25)	Infliximab	100	47.1 (12.8)	71 (71)			8.4 (7.2)	26 (26)	1 (1)	18 (18)	53 (53)	2 (2)	
	Placebo	100	46.5 (11.3)	51 (51)			7.8 (7.8)	23 (23)	2 (2)	22 (22)	47 (47)	6 (6)	
Antoni et al 2005 (IMPACT) (24)	Infliximab	52	45.7 (11.1)	30 (57)		16.9 (10.9)	11.7 (9.8)						
	Placebo	52	45.2 (9.7)	30 (57)		19.4 (11.6)	11 (6.6)						
Genovese et al 2007 (26)	Adalimumab	51	50.4 (11.0)	29 (57)	50 (98)	18 (13.2)	7.5 (7.0)	3 (6)	0 (0)			1 (2)	
	Placebo	51	47.7 (11.3)	25 (51)	46 (94)	13.8 (10.7)	7.2 (7.0)	0 (0)	0 (0)			1 (2)	
Kavanaugh et al 2009 (GO-REVEAL) (8)	Golimumab	146	45.7 (10.7)	89 (61)	141 (97)		7.2 (6.8)	24 (16)	2 (1)	44 (30)		14 (10)	
	Golimumab	146	48.2 (10.9)	86 (59)	142 (97)		7.7 (7.8)	22 (15)	1 (1)	49 (34)		18 (12)	
	Placebo	113	47.0 (10.6)	69 (61)	110 (97)		7.6 (7.9)	16 (14)	(0)	27 (24)		12 (11)	
McInnes et al 2013 (PSUMMIT 1) (27)	Ustekinumab	2205	48 (39-55)*	106 (52)		12 (4.1-22.2)*	3.4 (1.2-9.2)*						
	Ustekinumab	204	47 (39-54)*	116 (57)		14.1 (5.4-22.4)*	4.9 (1.7-8.3)*						
	Placebo	206	48 (39-57)*	108 (52)		13.1 (5.3-23.5)*	3.6 (1.0-9.7)*						
McInnes et al 2014 (28)	Secukinumab	28	46.7 (11.3)	9 (32)	28 (100)		6.3 (6.8)						10 (42)
	Placebo	14	47.6 (8.1)	6 (43)	11 (79)		5.4 (3.8)						3 (23)
Mease et al 2000 (30)	Etanercept	30	46 (30-70)+	16 (53)	27 (90)	19 (4-53)	19 (4-53)+						
	Placebo	30	43.5 (24-63)+	18 (60)	25 (83)	17.5 (2-43)	17.5 (2-43)+						
Mease et al 2004 (10)	Etanercept	101	47.6	58 (57)	91 (90)	18.3	9.0	52 (51)	1 (1)	41 (41)	87 (86)		
	Placebo	104	47.3	47 (45)	95 (91)	19.7	9.2	52 (50)	2 (2)	40 (38)	86 (83)		
Mease et al 2005 (ADEPT) (9)	Adalimumab	151	48.6 (12.5)	85 (56)	147 (97)	17.2 (12)	9.8 (8.3)	15 (10)	1 (1)			0 (0)	
	Placebo	162	49.2 (11.1)	89 (55)	152 (94)	17.1 (12.6)	9.2 (8.7)	8 (5)	0 (0)			0 (0)	
Mease et al 2011 (34)	Abatacept	45	50.3 (9.9)	22 (49)	40 (98)								16 (36)
	Abatacept	40	50.8 (10.5)	26 (65)	38 (95)								13 (33)
	Abatacept	43	51.5 (9.8)	20 (46)	43 (100)								22 (51)
	Placebo	42	52.6 (12.0)	23 (55)	41 (98)								12 (29)

Primary Author	Intervention	N	Age, mean (SD)	Males, n (%)	White, n (%)	Psoriasis duration, mean (SD)	PsA duration, mean (SD)	DIP, n (%)	AM, n (%)	APA, n (%)	PAA, n (%)	Spondylitis, n (%)	Prior anti-TNF use, n (%)
Mease et al 2014 (RAPID-PsA) (29)	Certolizumab	138	48.2 (12.3)	63 (46)	135 (99)								31 (23)
	Certolizumab	135	47.1 (10.8)	62 (46)	132 (98)								23 (17)
	Placebo	136	47.3 (11.1)	57 (42)	132 (97)								26 (19)
Ritchlin et al 2014 (PSUMMIT 2) (31)	Ustekinumab	103	49 (40-56)*	48 (47)		13.3 (5-24.4)+	5.3 (2.3-12.2)*						60 (58)
	Ustekinumab	105	48 (41-57)*	49 (47)		11.3 (4.5-21.4)+	4.5 (1.7-10.3)*						58 (55)
	Placebo	104	48 (39-56)*	51 (49)		11.4 (6-22)+	5.5 (2.3-12.2)*						62 (60)

SD – standard deviation; PsA – psoriatic arthritis; DIP – distal interphalangeal joint arthritis; AM – arthritis mutilans; APA – asymmetric peripheral arthritis; PAA – polyarticular arthritis; TNF – tumour necrosis factor; * - median (interquartile range); + - median (range)

Supplementary Table 5: Treatment characteristics

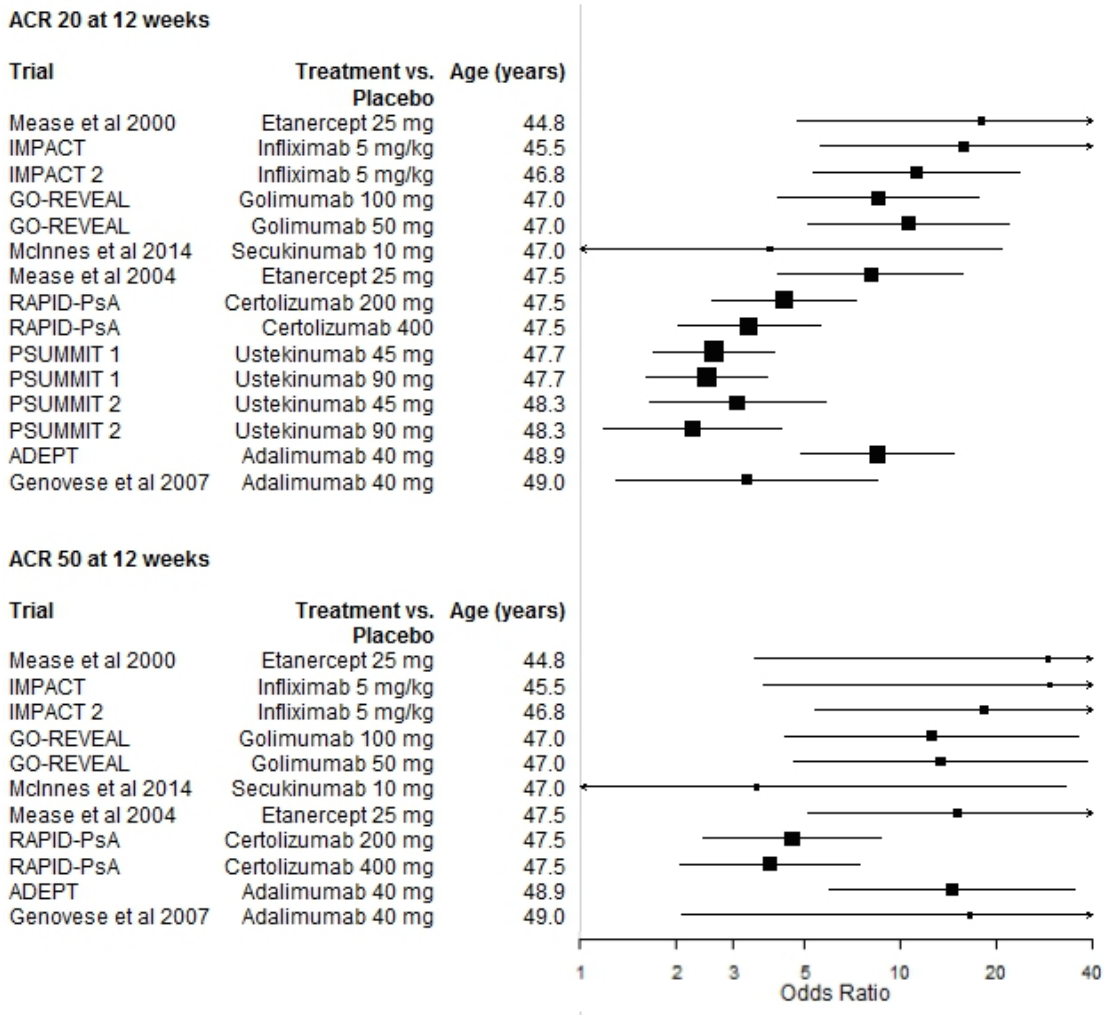
Primary Author	Intervention	Dose	Regimen	Route	Treatment duration (weeks)
Antoni et al 2005 (IMPACT 2) (25)	Infliximab	5 mg/kg	Weeks 0, 2, 6, 14 and 22	Intravenous	24
	Placebo				
Antoni et al 2005 (IMPACT) (24)	Infliximab	5 mg/kg	Weeks 0, 2, 4, 6 and 14	Intravenous	50
	Placebo				
Genovese et al 2007 (26)	Adalimumab	40 mg	Every other week	Subcutaneous	24
	Placebo				
Kavanaugh et al 2009 (GO-REVEAL) (8)	Golimumab	50 mg	Every fourth week	Subcutaneous	24
	Golimumab	100 mg	Every fourth week	Subcutaneous	24
	Placebo				
McInnes et al 2013 (PSUMMIT 1) (27)	Ustekinumab	45 mg	Weeks 0, 4 and every 12 weeks thereafter	Subcutaneous	52
	Ustekinumab	90 mg	Weeks 0, 4 and every 12 weeks thereafter	Subcutaneous	52
	Placebo				
McInnes et al 2014 (28)	Secukinumab	10 mg	Weeks 0 and 3	Subcutaneous	24
	Placebo				
Mease et al 2000 (30)	Etanercept	25 mg	Twice weekly	Subcutaneous	12
	Placebo				
Mease et al 2004 (10)	Etanercept	25 mg	Twice weekly	Subcutaneous	24
	Placebo				
Mease et al 2005 (ADEPT) (9)	Adalimumab	40 mg	Every other week	Subcutaneous	24
	Placebo				
Mease et al 2011 (34)	Abatacept	3 mg/kg	Weeks 0, 2, 4 and every 4 weeks thereafter	Intravenous	26
	Abatacept	10 mg/kg	Weeks 0, 2, 4 and every 4 weeks thereafter	Intravenous	26
	Abatacept	30 mg/kg	30 mg/kg at weeks 0 and 2, 10 mg/kg at weeks 4 and every 4 weeks thereafter	Intravenous	26
	Placebo				
Mease et al 2014 (RAPID-PsA) (29)	Certolizumab	200 mg	Every other week	Subcutaneous	216
	Certolizumab	400 mg	Every fourth week	Subcutaneous	216
	Placebo				
Ritchlin et al 2014 (PSUMMIT 2) (31)	Ustekinumab	45 mg	Weeks 0, 4 and every 12 weeks thereafter	Subcutaneous	52
	Ustekinumab	90 mg	Weeks 0, 4 and every 12 weeks thereafter	Subcutaneous	52
	Placebo				

Supplementary Table 6: Trial characteristics

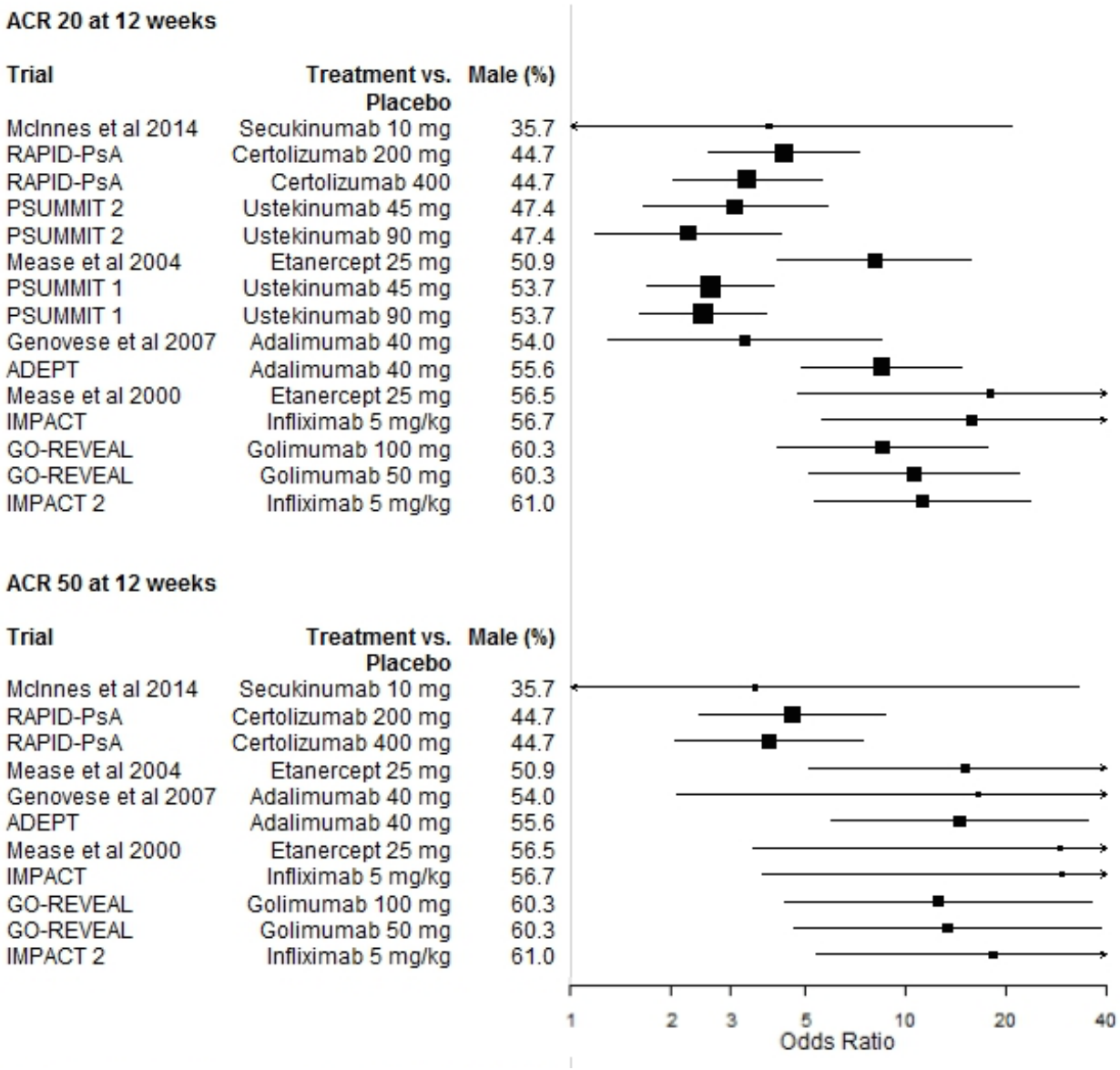
Primary Author	Total length of study (weeks)	Length of randomization period (weeks)	Early escape allowed	Week of early escape	Subsequent trial publications
Antoni et al 2005 (IMPACT 2) (25)	24	16	Yes	16	Kavanaugh et al 2007 (7)
Antoni et al 2005 (IMPACT) (24)	50	16	No	NA	
Genovese et al 2007 (26)	24	12	No	NA	
Kavanaugh et al 2009 (GO-REVEAL) (8)	24	24	Yes	16	Kavanaugh et al 2013 (49)
McInnes et al 2013 (PSUMMIT 1) (27)	52	24	Yes	16	
McInnes et al 2014 (28)	24	24	No	NA	
Mease et al 2000 (30)	24	24	No	NA	
Mease et al 2004 (10)	24	24	No	NA	Mease et al 2010 (50)
Mease et al 2005 (ADEPT) (9)	24	24	No	NA	
Mease et al 2011 (34)	26	24	No	NA	
Mease et al 2014 (RAPID-PsA) (29)	216	24	Yes	16	Gladman et al 2014 (51)
Ritchlin et al 2014 (PSUMMIT 2) (31)	52	24	Yes	16	

Appendix 4: Forest plots for ACR 20 and ACR 50

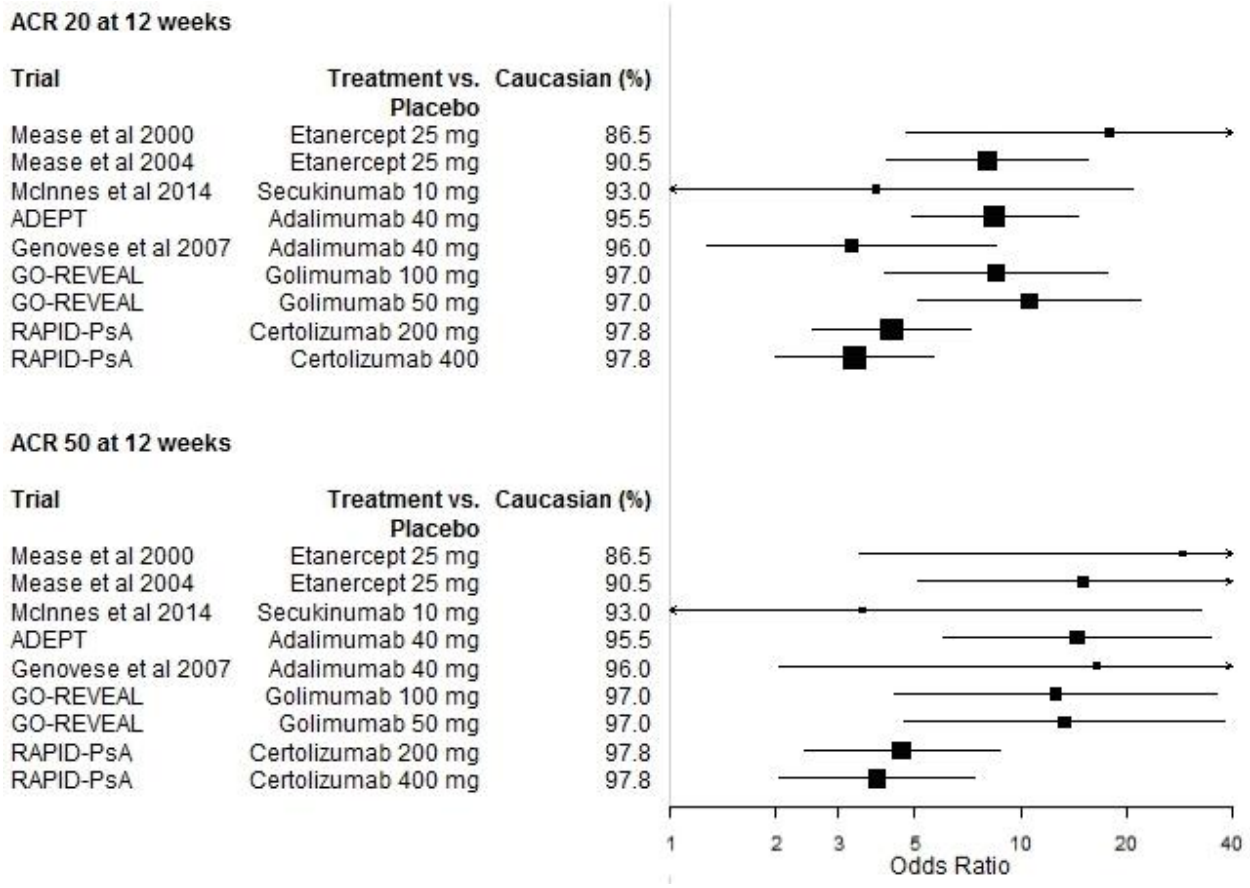
Supplementary Figure 1: Forest plot of odds ratios for ACR 20 and ACR 50 at 12 weeks for age (years)



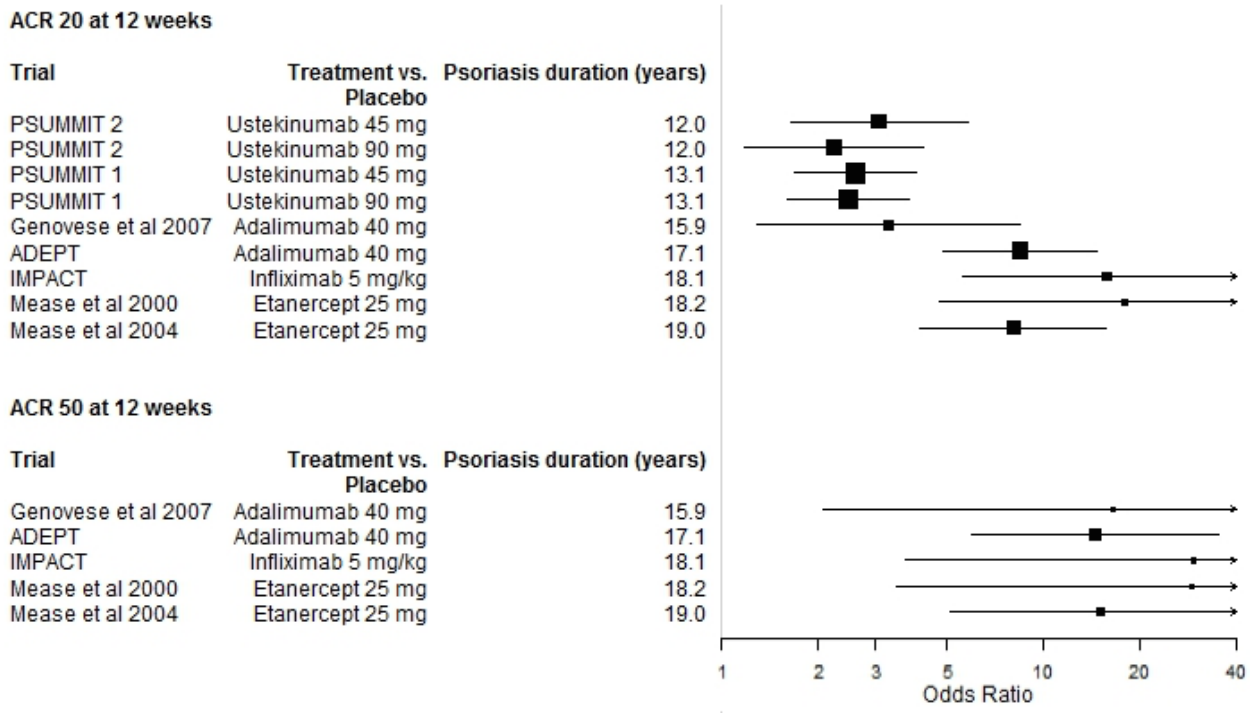
Supplementary Figure 2: Forest plot of odds ratios for ACR 20 and ACR 50 at 12 weeks for male (%)



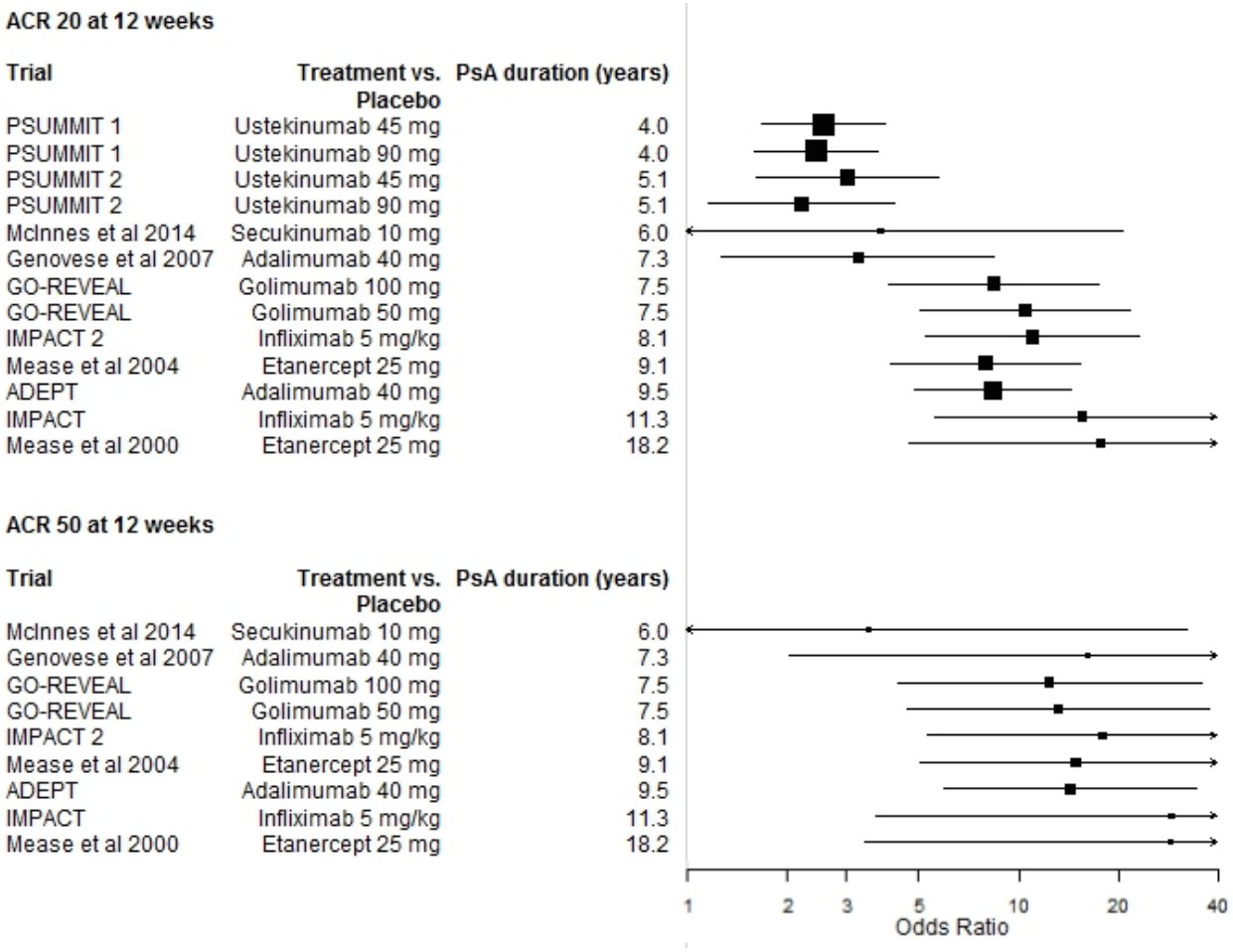
Supplementary Figure 3: Forest plot of odds ratios for ACR 20 and ACR 50 at 12 weeks for Caucasian (%)



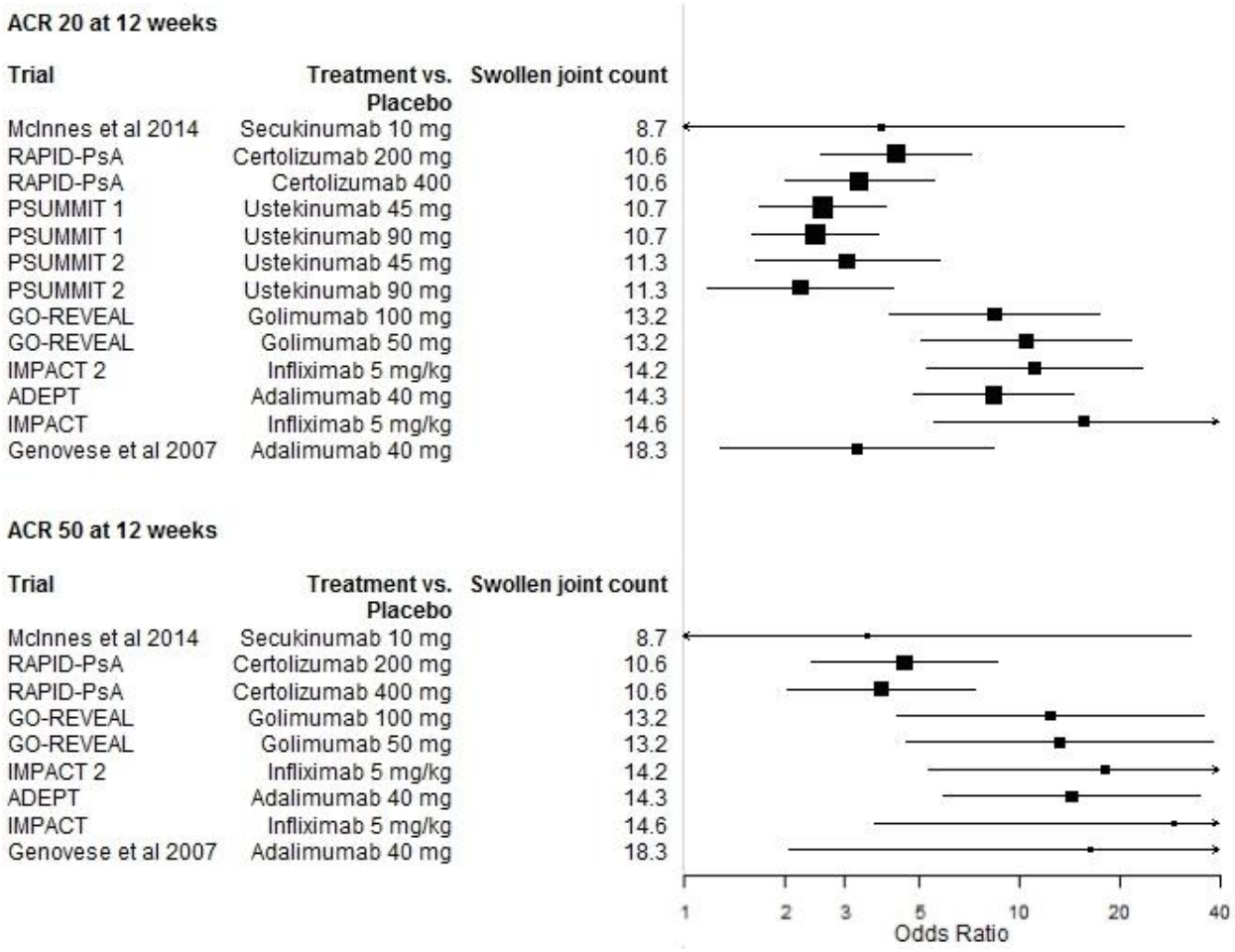
Supplementary Figure 4: Forest plot of odds ratios for ACR 20 and ACR 50 at 12 weeks for psoriasis disease duration (years)



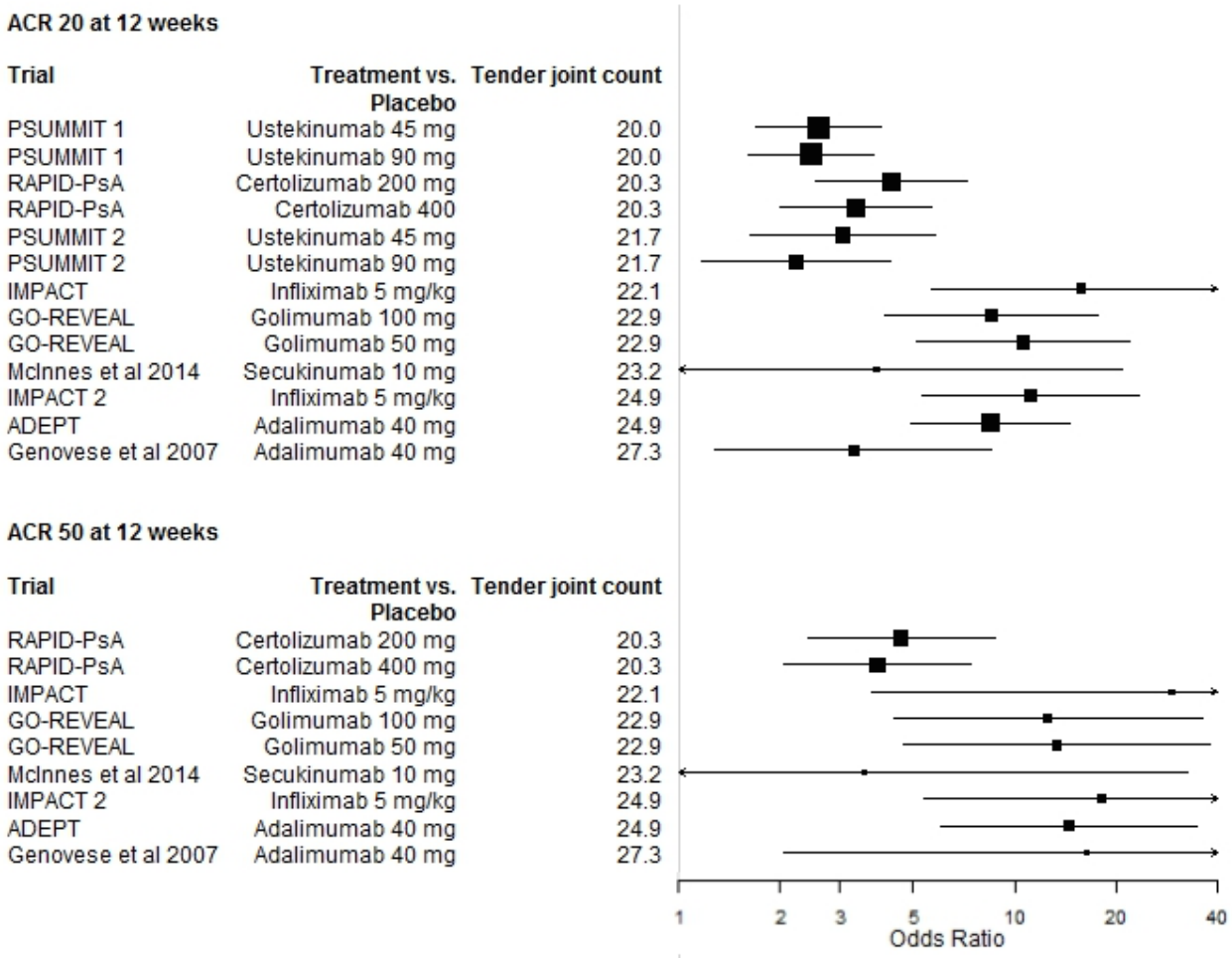
Supplementary Figure 5: Forest plot of odds ratios for ACR 20 and ACR 50 at 12 weeks for PsA disease duration (years)



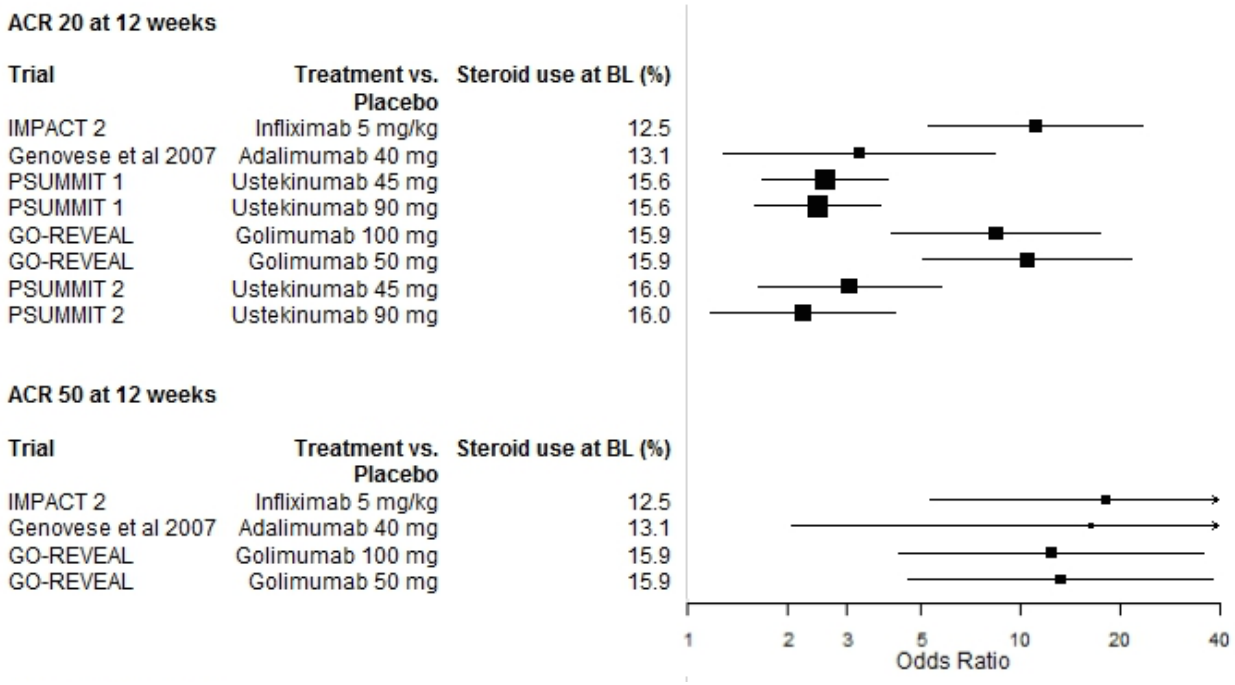
Supplementary Figure 6: Forest plot of odds ratios for ACR 20 and ACR 50 at 12 weeks for swollen joint count



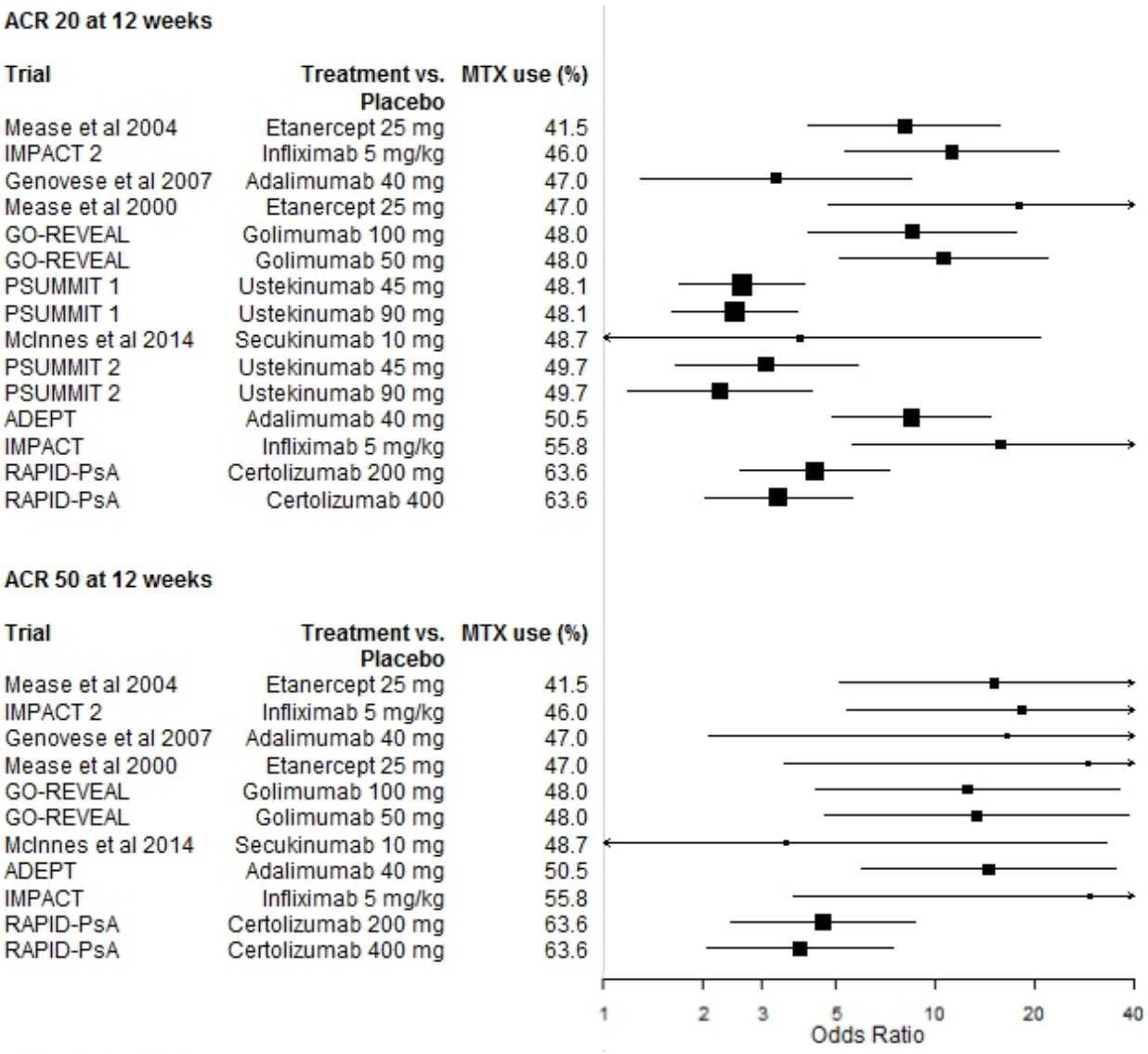
Supplementary Figure 7: Forest plot of odds ratios for ACR 20 and ACR 50 at 12 weeks for tender joint count



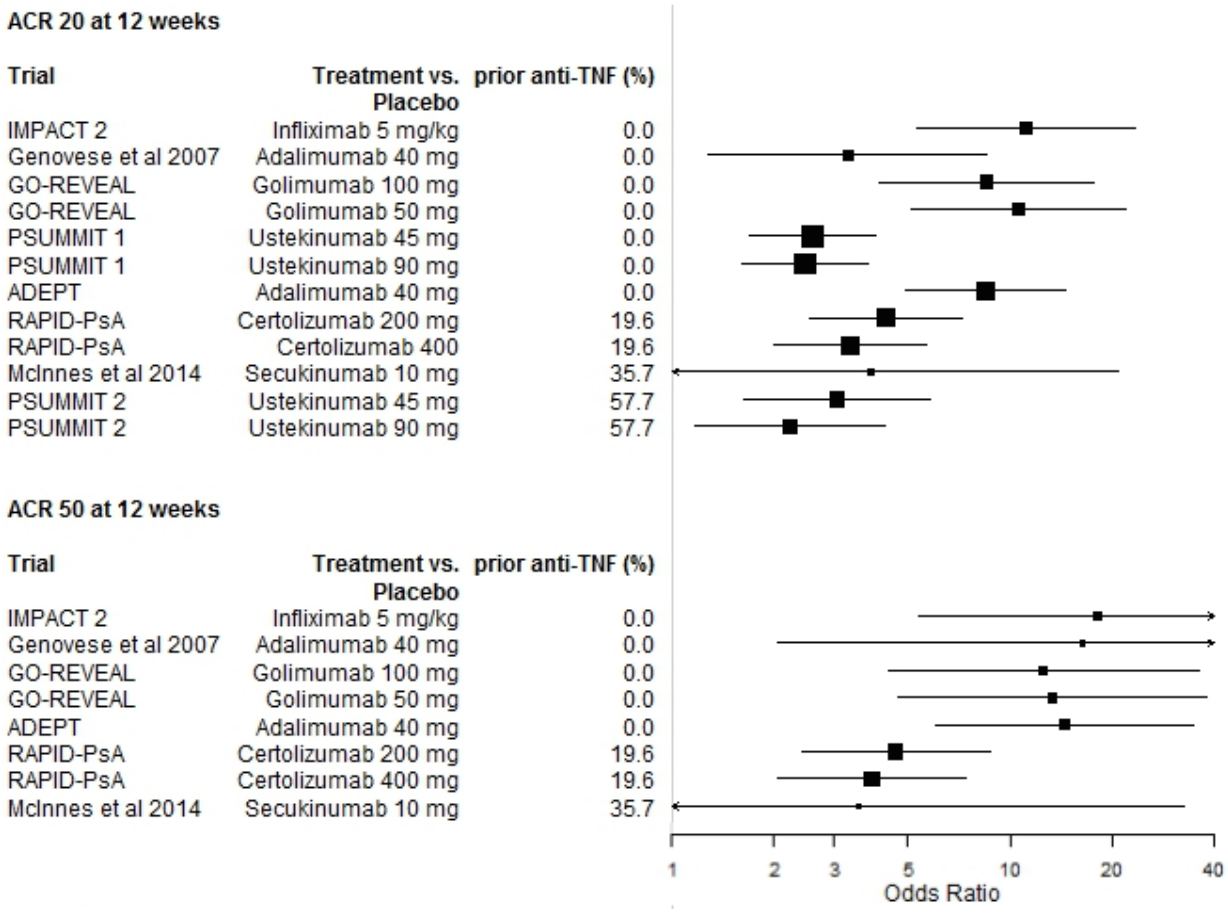
Supplementary Figure 8: Forest plot of odds ratios for ACR 20 and ACR 50 at 12 weeks for steroid use at baseline (%)



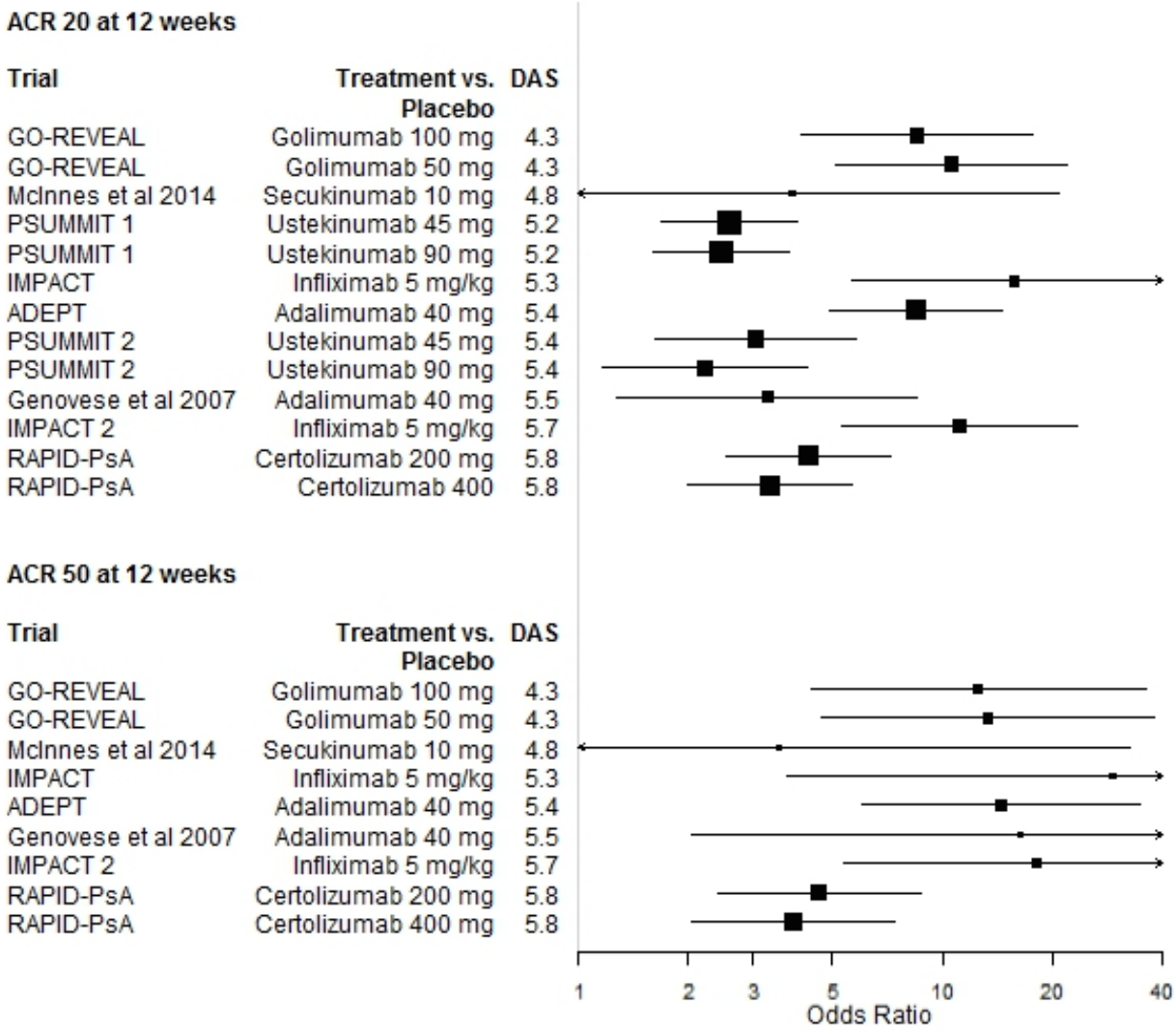
Supplementary Figure 9: Forest plot of odds ratios for ACR 20 and ACR 50 at 12 weeks for methotrexate use (%)



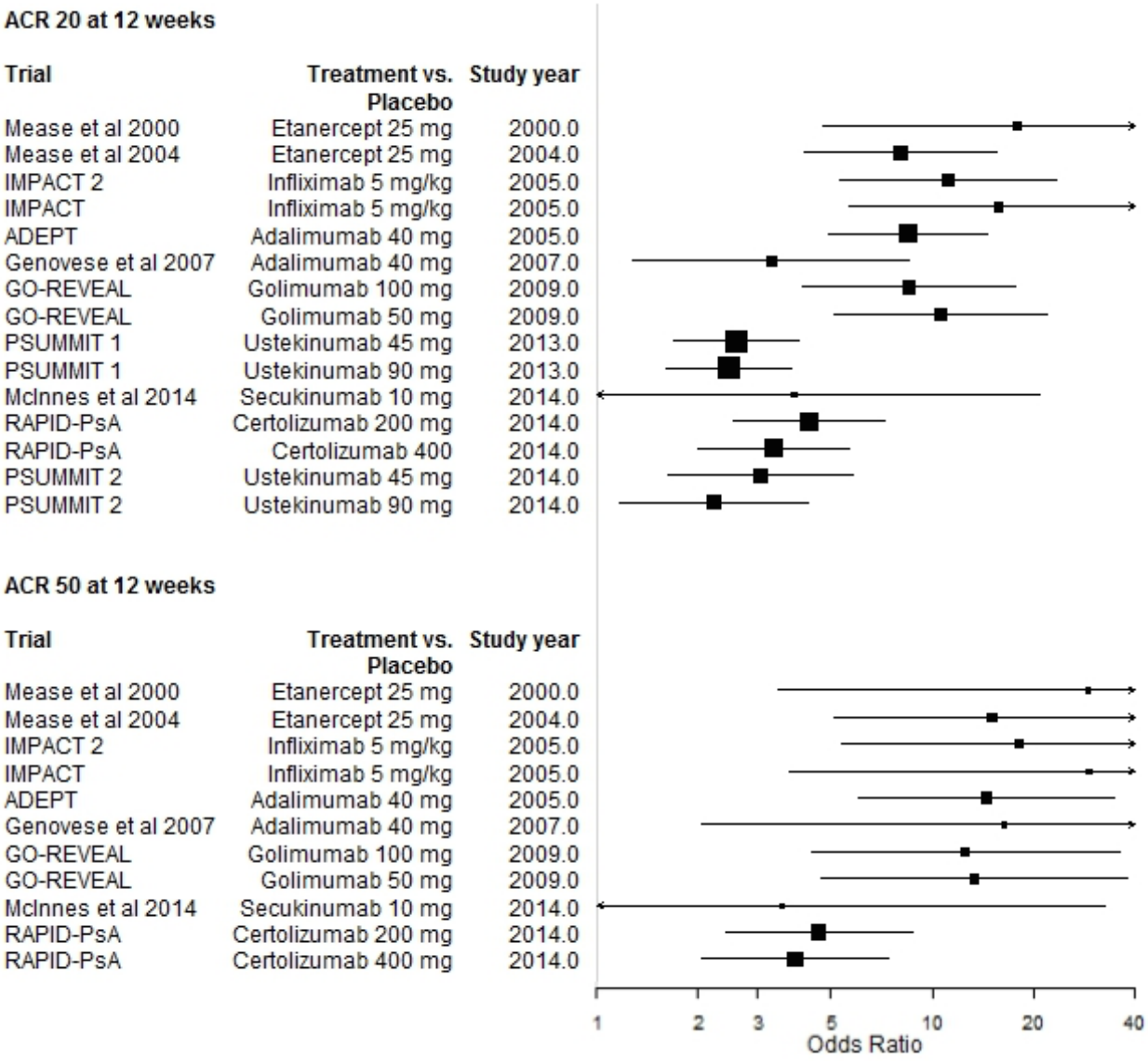
Supplementary Figure 10: Forest plot of odds ratios for ACR 20 and ACR 50 at 12 weeks for prior anti-TNF use (%)



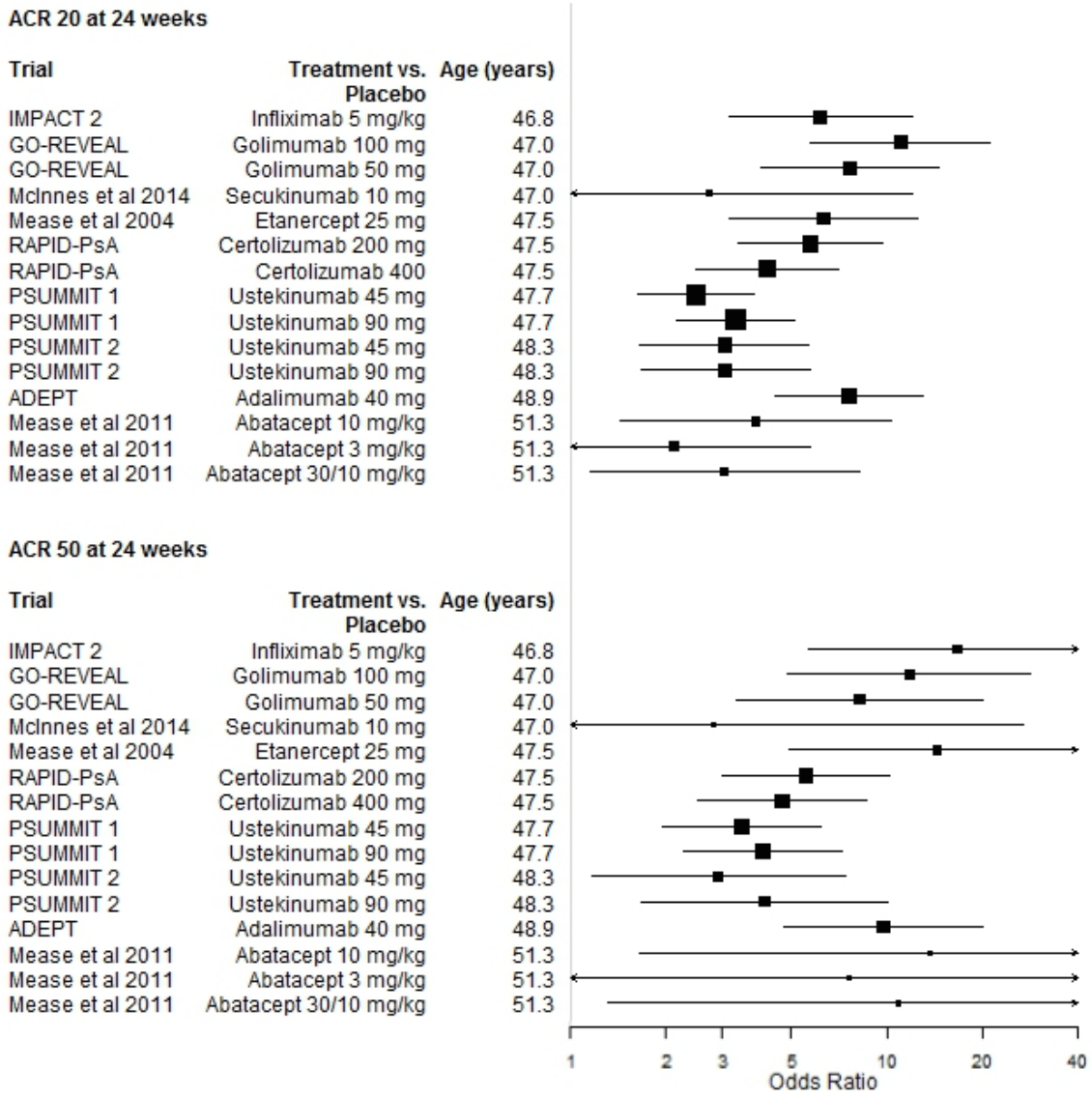
Supplementary Figure 11: Forest plot of odds ratios for ACR 20 and ACR 50 at 12 weeks for DAS



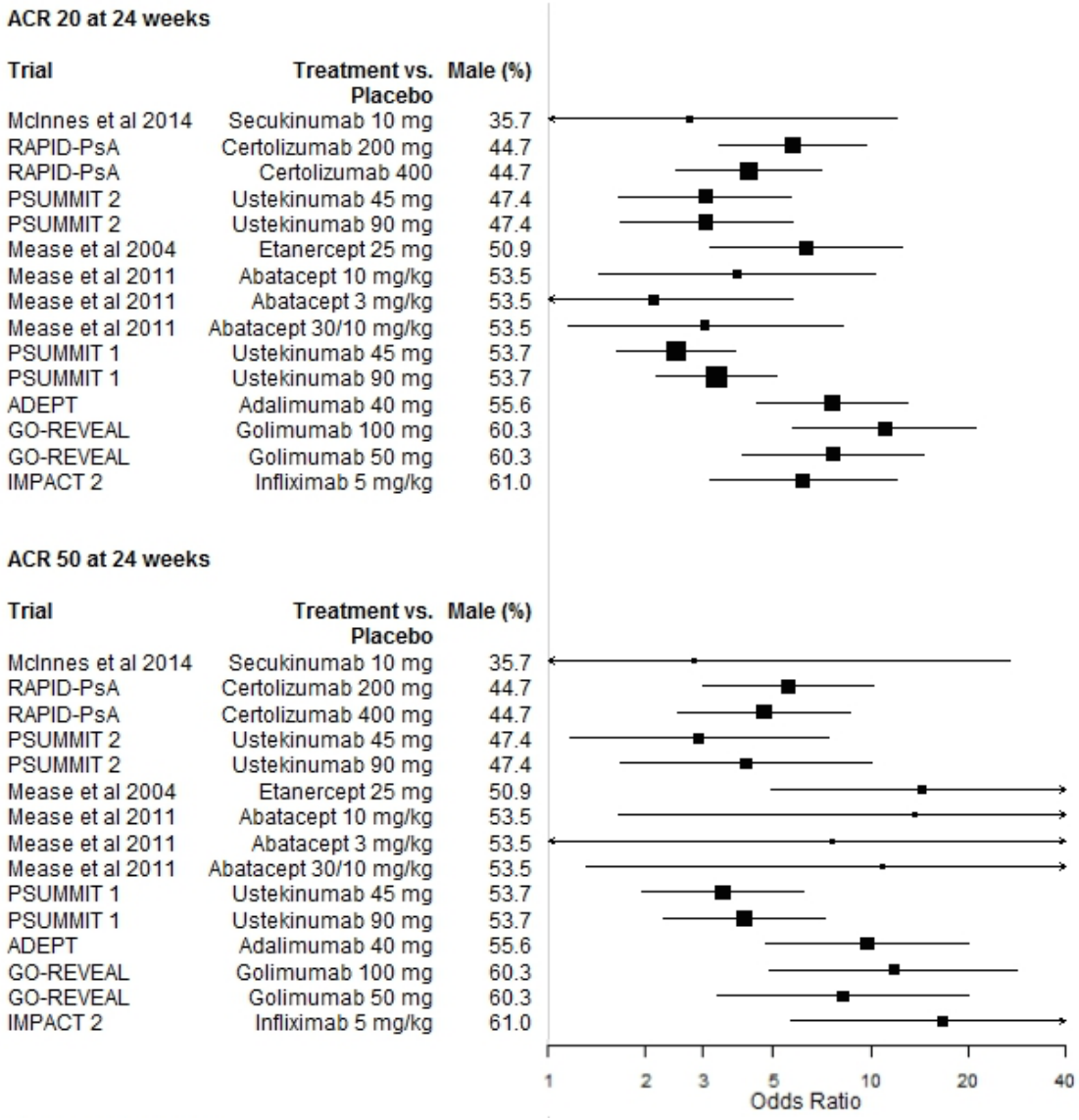
Supplementary Figure 12: Forest plot of odds ratios for ACR 20 and ACR 50 at 12 weeks for publication year



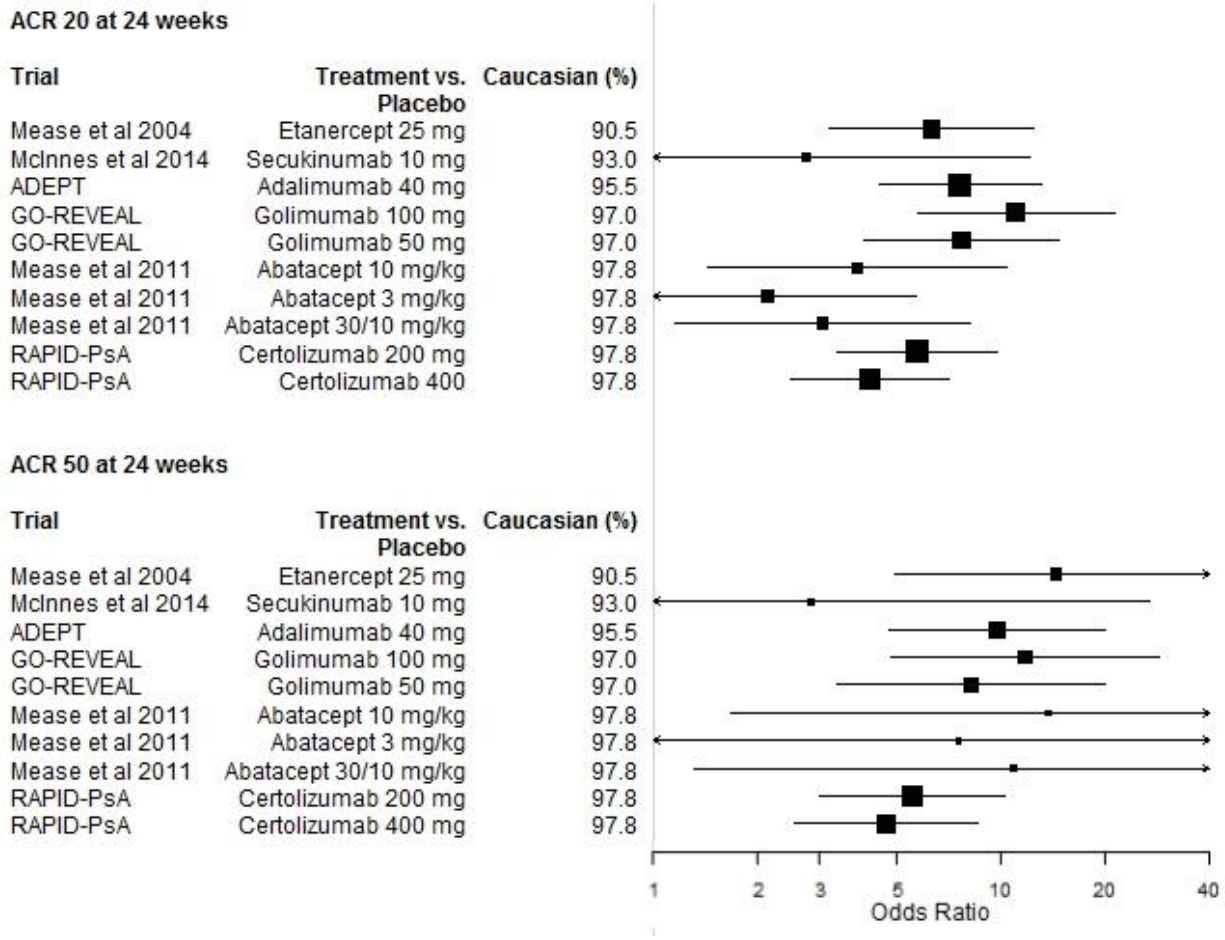
Supplementary Figure 13: Forest plot of odds ratios for ACR 20 and ACR 50 at 24 weeks for age (years)



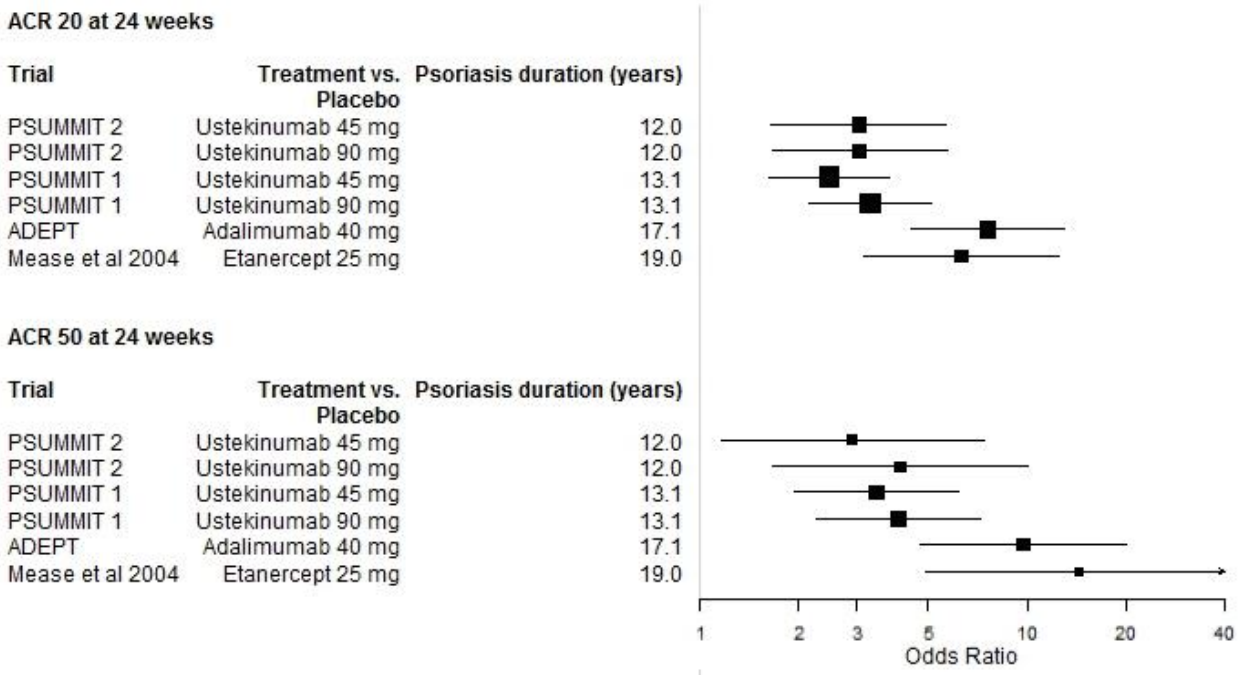
Supplementary Figure 14: Forest plot of odds ratios for ACR 20 and ACR 50 at 24 weeks for male (%)



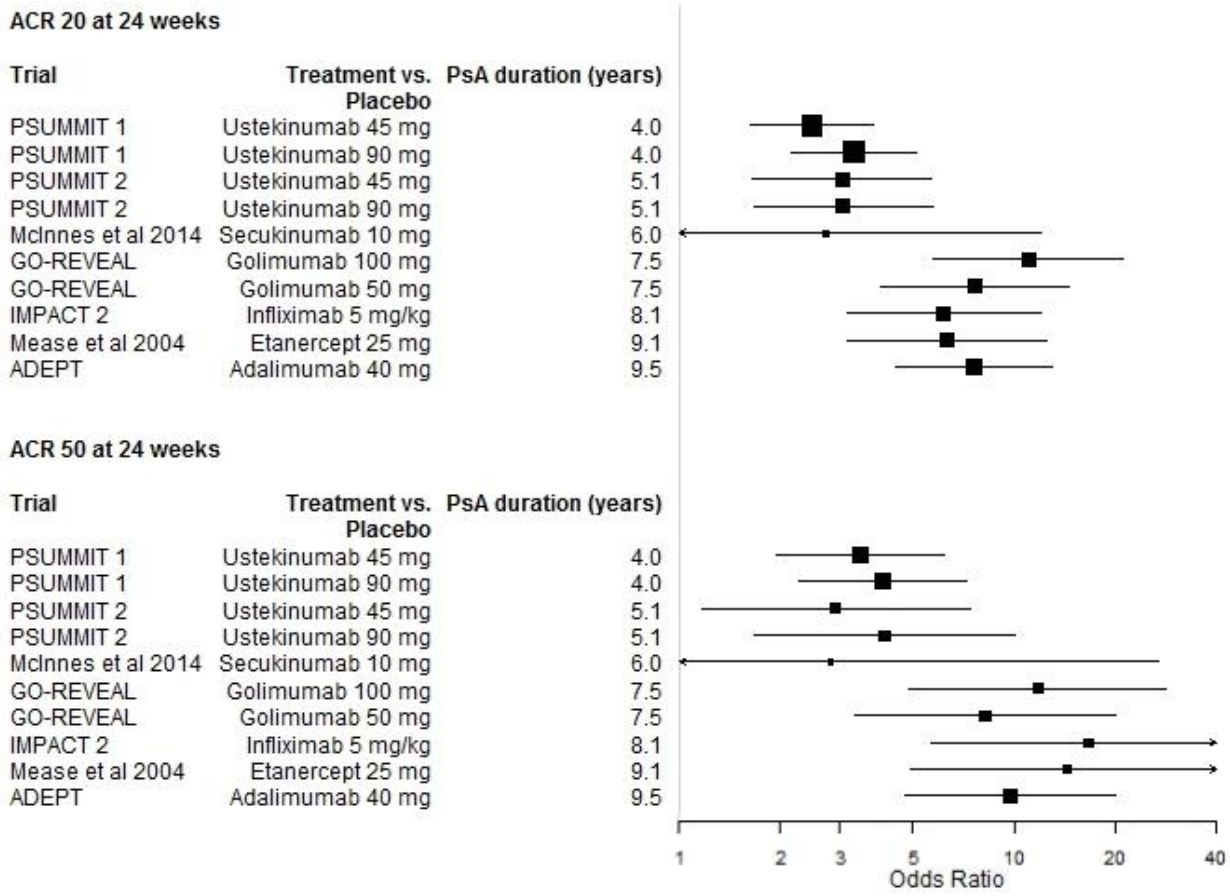
Supplementary Figure 15: Forest plot of odds ratios for ACR 20 and ACR 50 at 24 weeks for Caucasian (%)



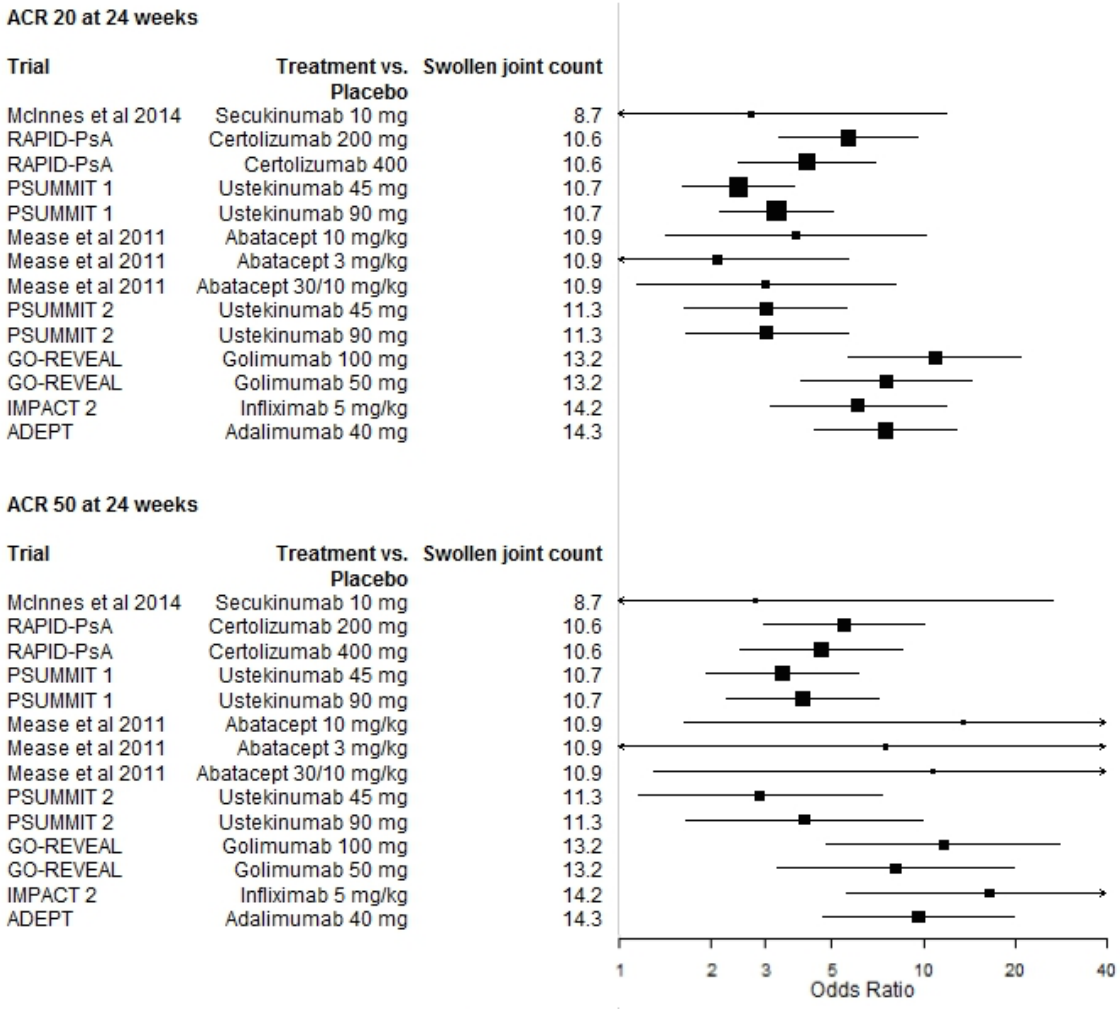
Supplementary Figure 16: Forest plot of odds ratios for ACR 20 and ACR 50 at 24 weeks for psoriasis disease duration (years)



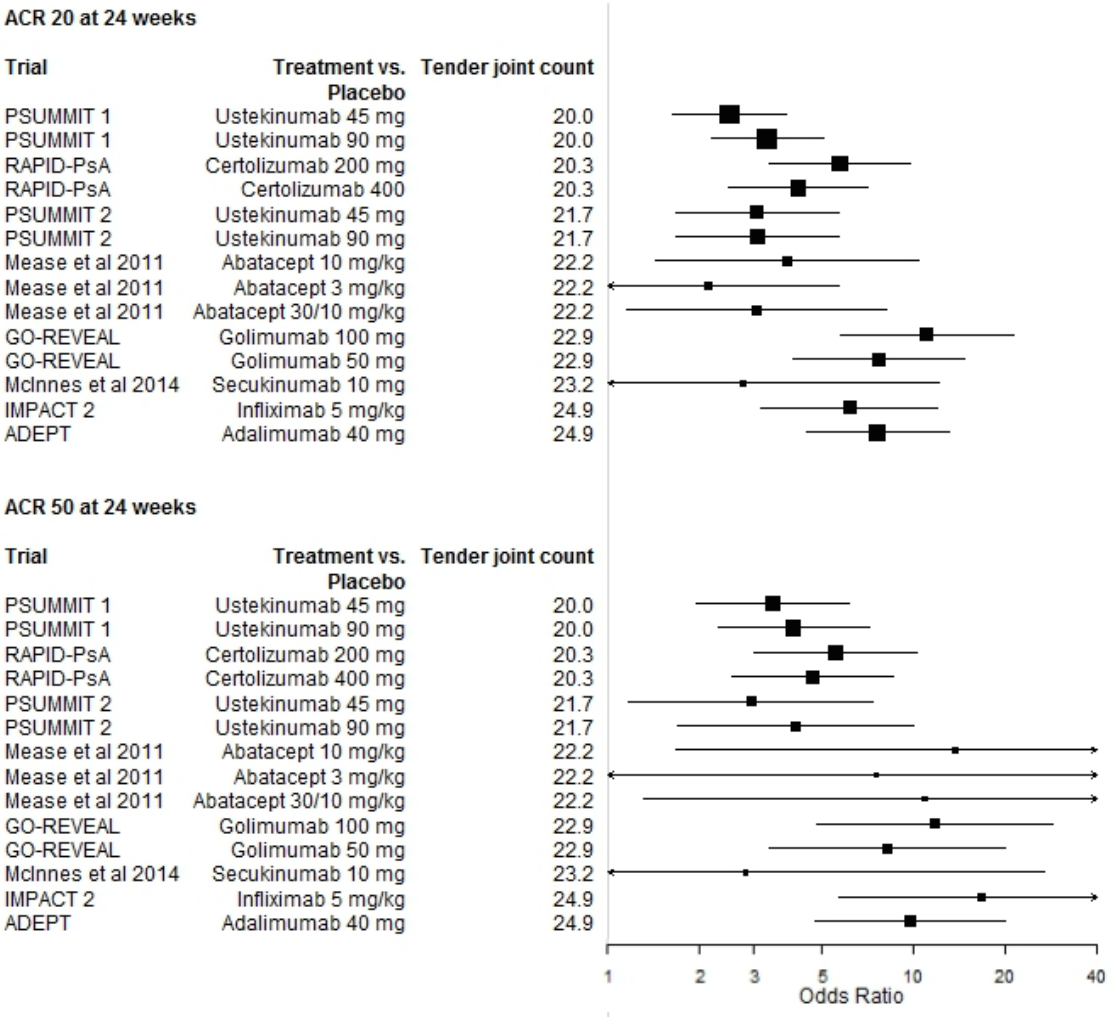
Supplementary Figure 17: Forest plot of odds ratios for ACR 20 and ACR 50 at 24 weeks for PsA disease duration (years)



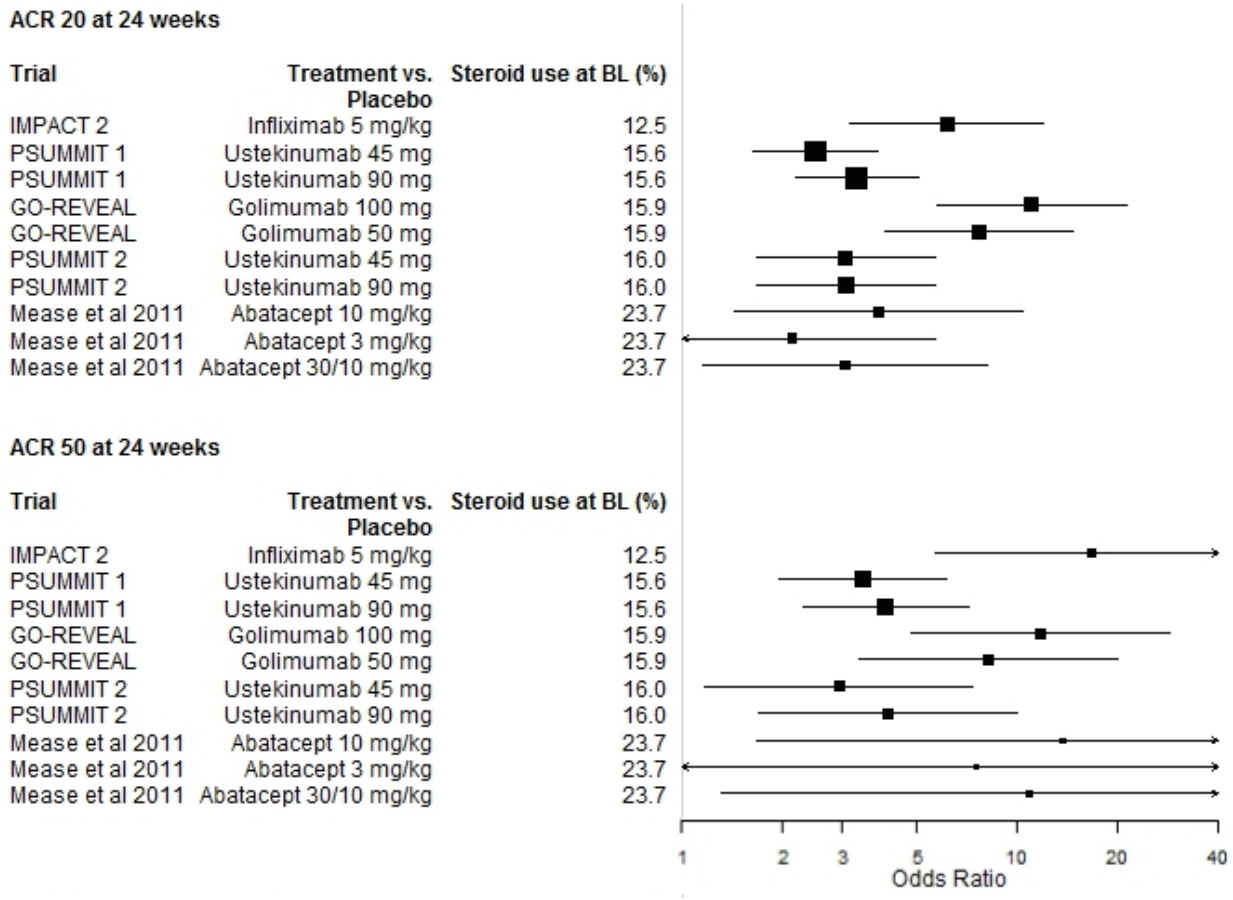
Supplementary Figure 18: Forest plot of odds ratios for ACR 20 and ACR 50 at 24 weeks for swollen joint count



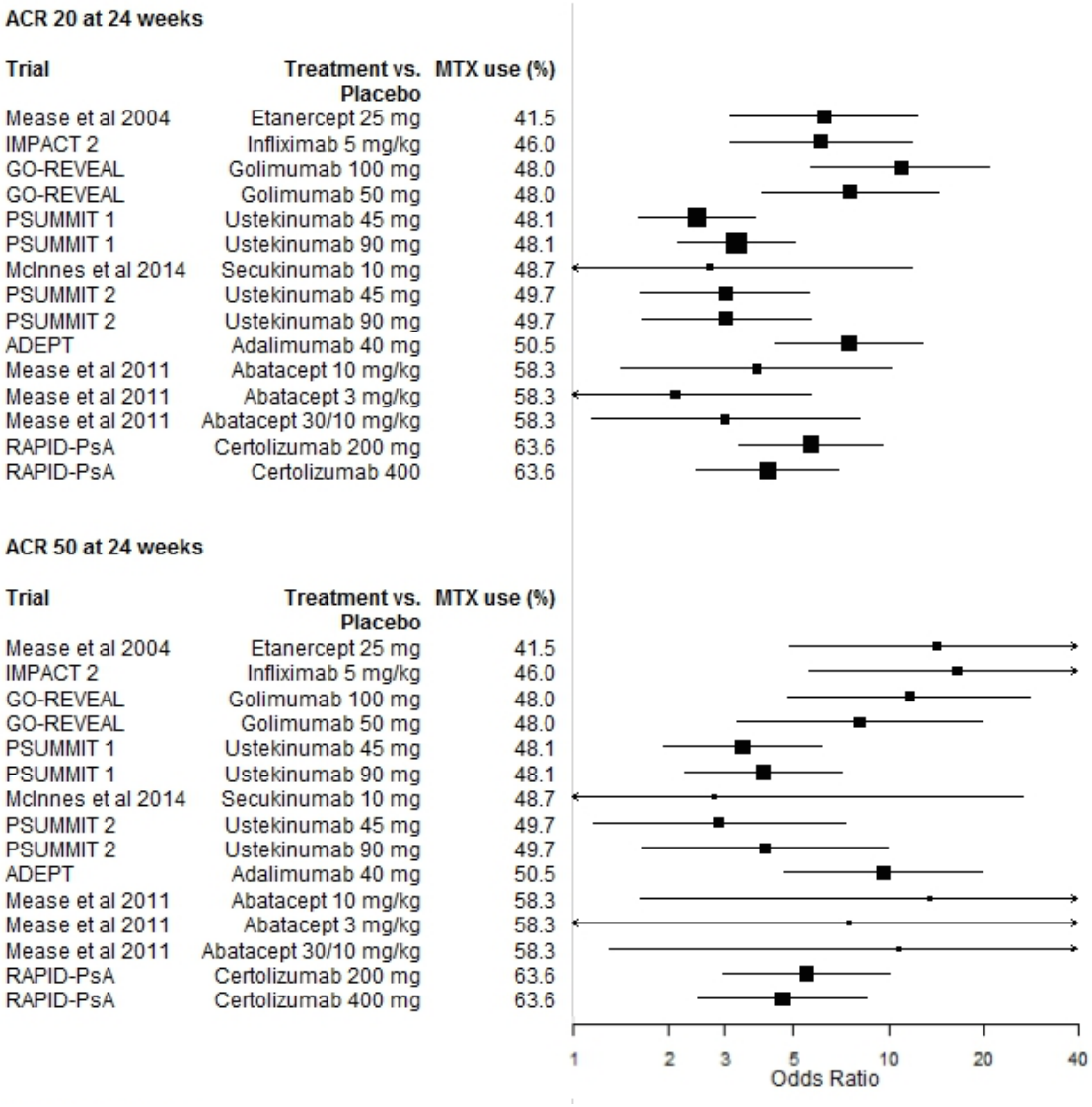
Supplementary Figure 19: Forest plot of odds ratios for ACR 20 and ACR 50 at 24 weeks for tender joint count



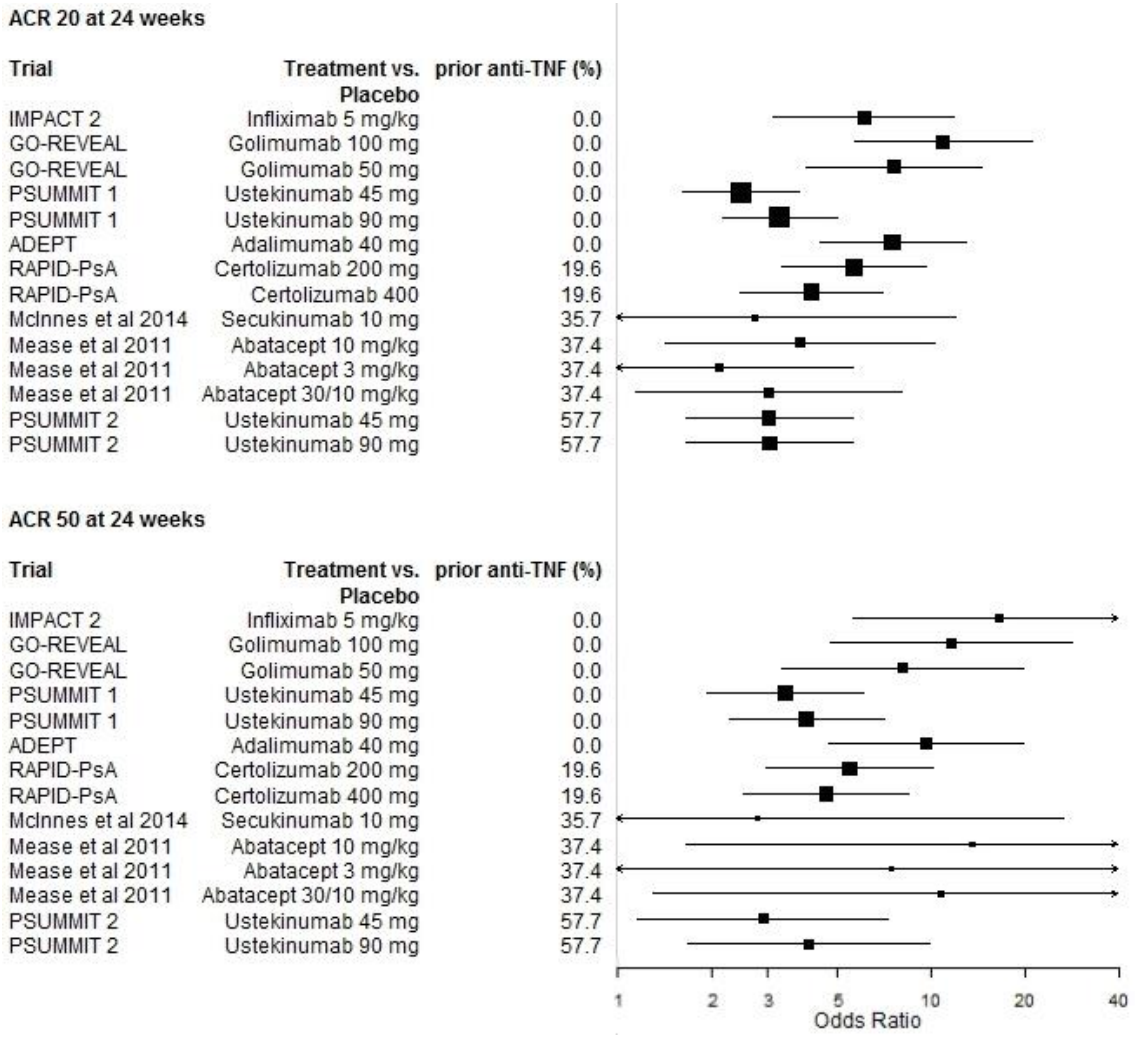
Supplementary Figure 20: Forest plot of odds ratios for ACR 20 and ACR 50 at 24 weeks for steroid use at baseline (%)



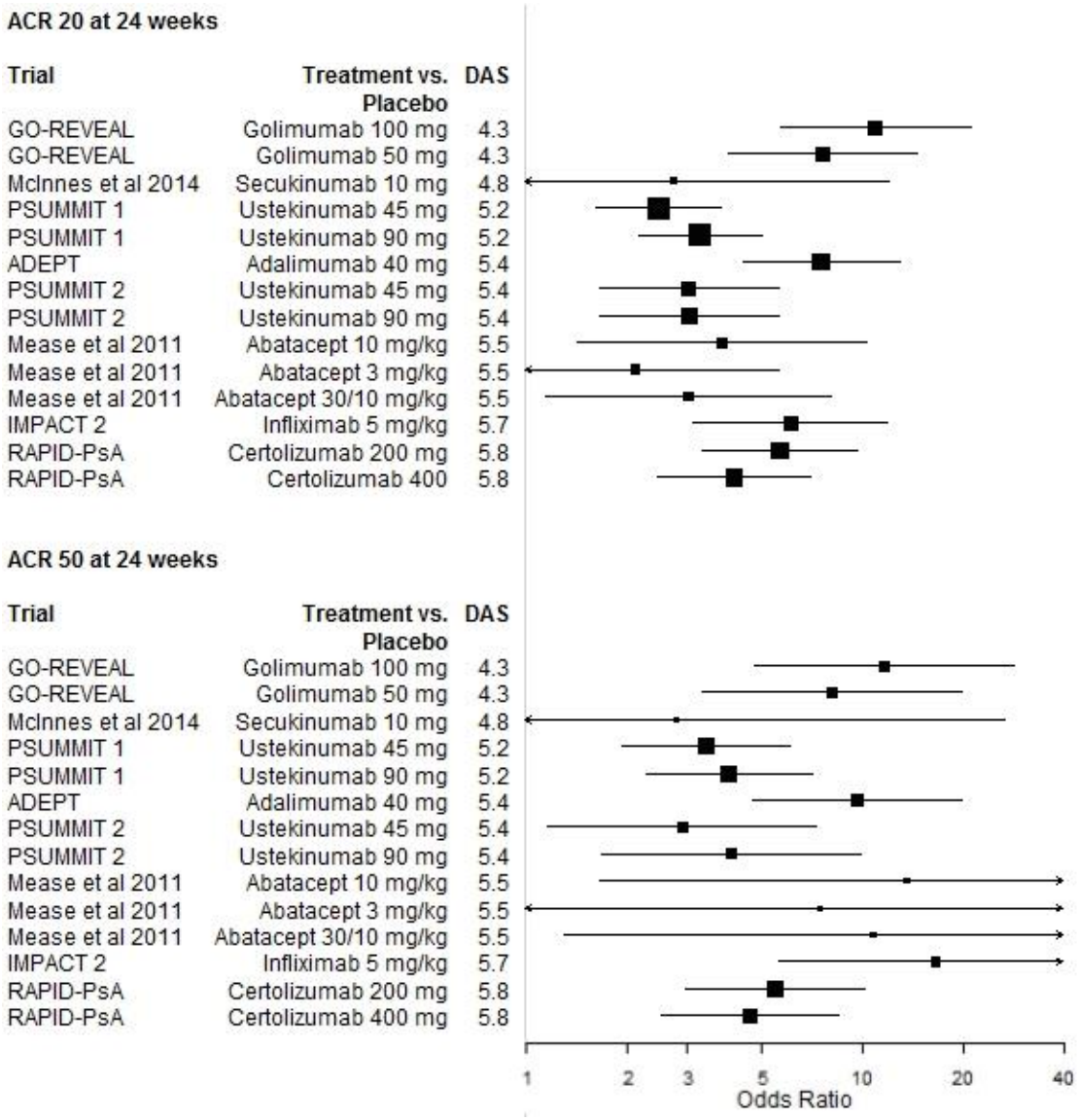
Supplementary Figure 21: Forest plot of odds ratios for ACR 20 and ACR 50 at 24 weeks for methotrexate use (%)



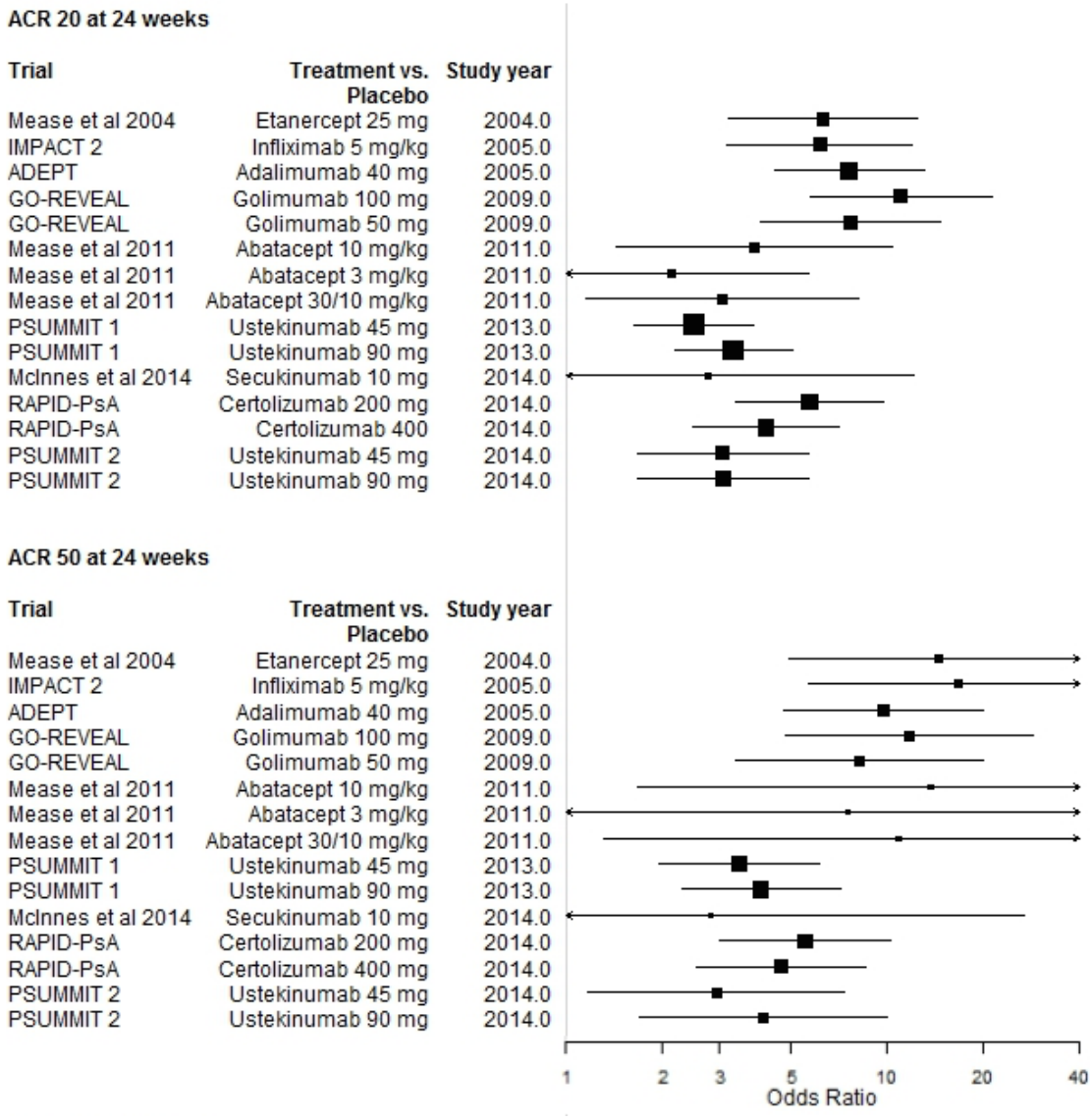
Supplementary Figure 22: Forest plot of odds ratios for ACR 20 and ACR 50 at 24 weeks for prior anti-TNF use (%)



Supplementary Figure 23: Forest plot of odds ratios for ACR 20 and ACR 50 at 24 weeks for DAS

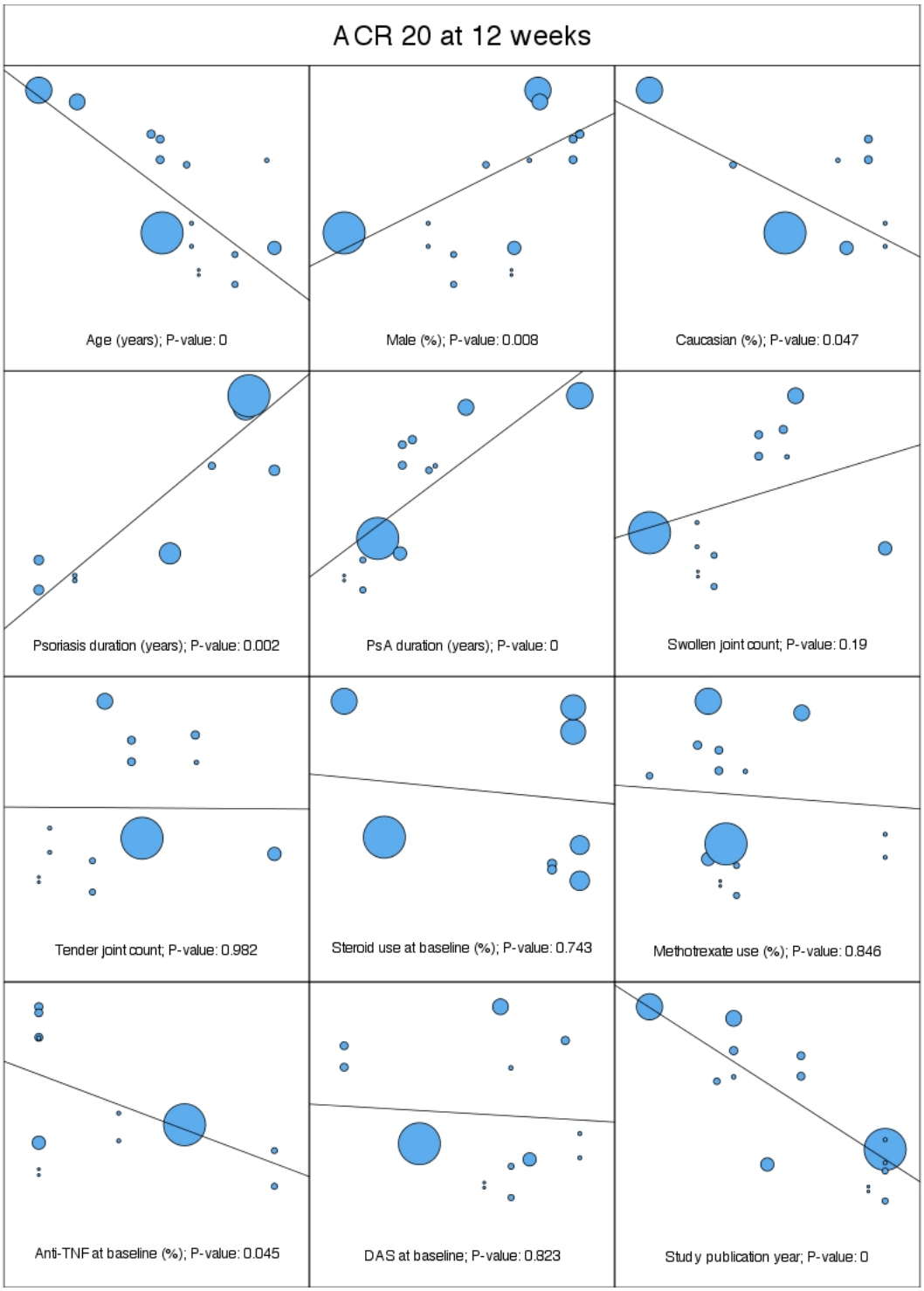


Supplementary Figure 24: Forest plot of odds ratios for ACR 20 and ACR 50 at 24 weeks for publication year



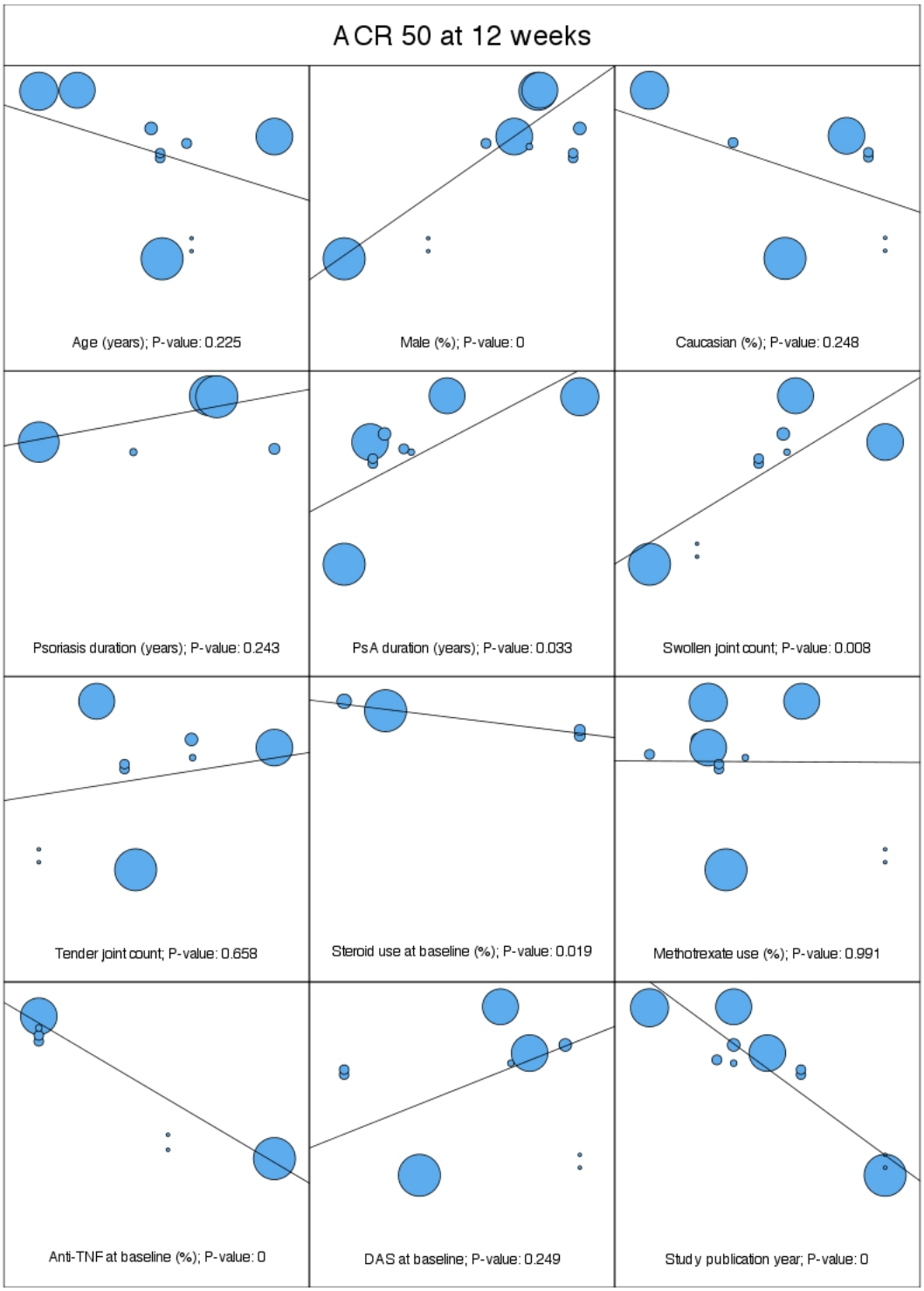
Appendix 5: L’Abbe plots for ACR 20 and ACR 50

Supplementary Figure 25: Meta-regression (L'Abbé) plots of log odds ratios (y-axis) against the underlying covariate value (x-axis) for the ACR 20 outcome at 12 weeks



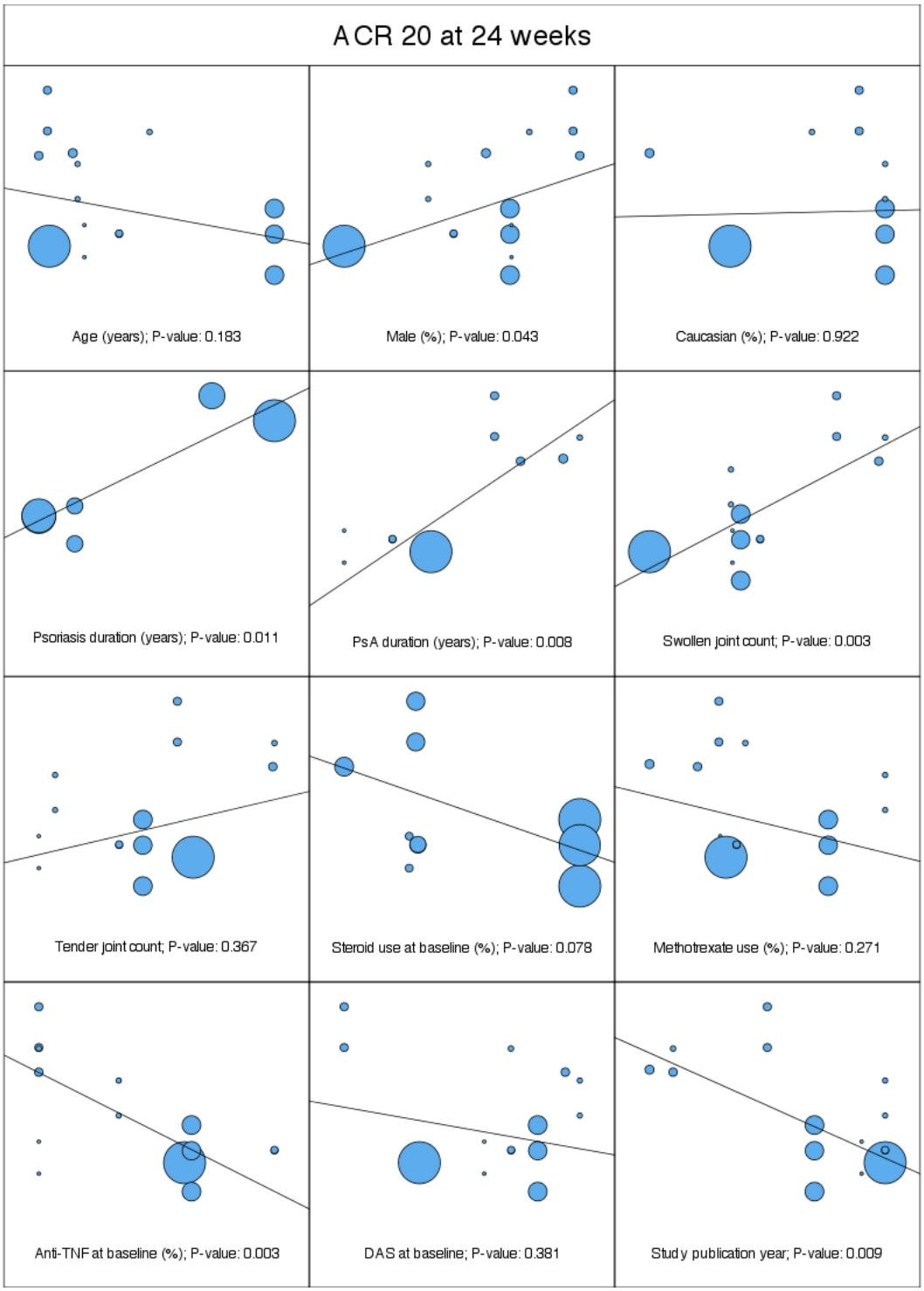
Note: Lines are provided by a weighted linear regression, with weights being inversely proportional to the variance in each estimate.

Supplementary Figure 26: Meta-regression (L'Abbé) plots of log odds ratios (y-axis) against the underlying covariate value (x-axis) for the ACR 50 outcome at 12 weeks



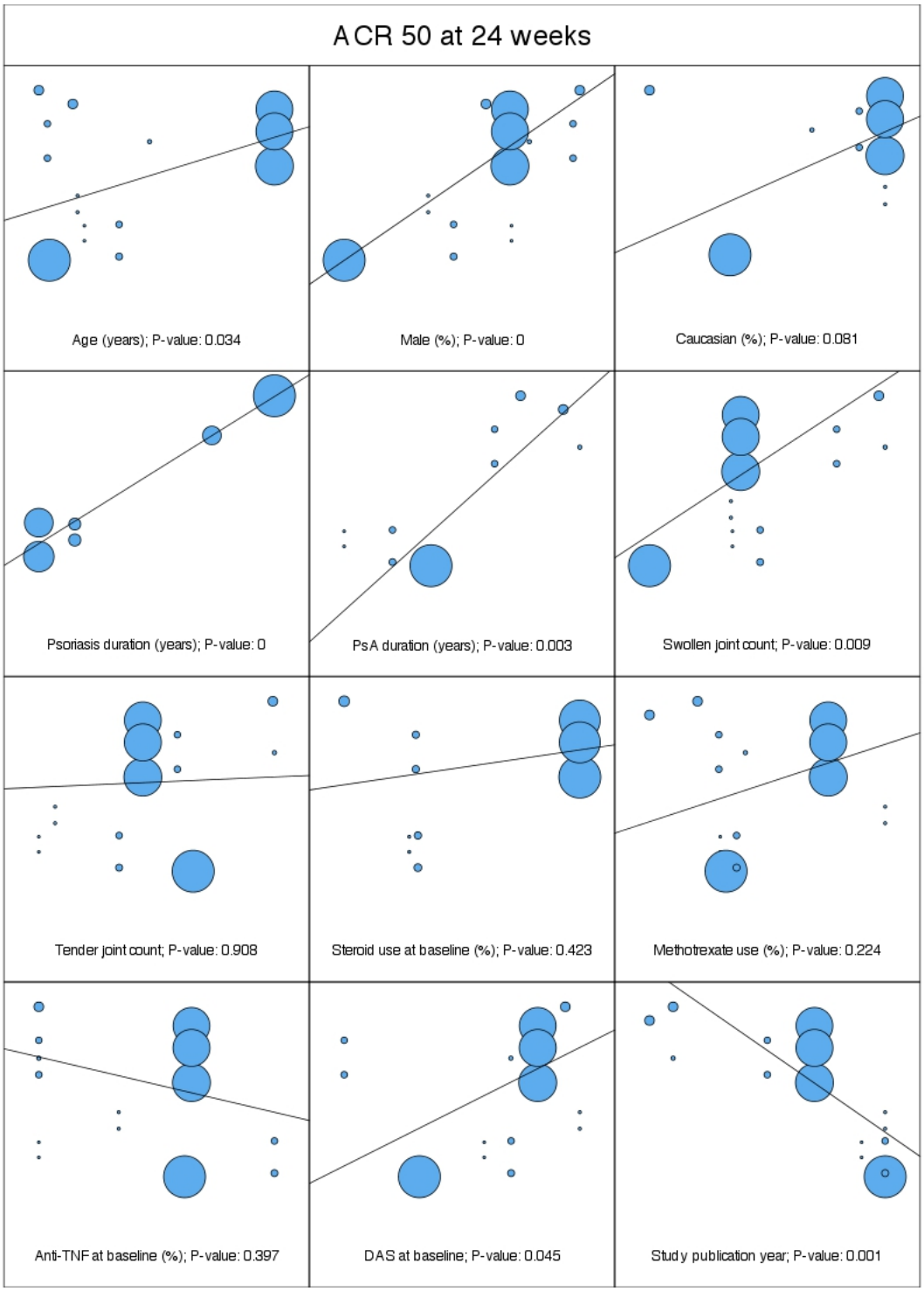
Note: Lines are provided by a weighted linear regression, with weights being inversely proportional to the variance in each estimate.

Supplementary Figure 27: Meta-regression (L'Abbé) plots of log odds ratios (y-axis) against the underlying covariate value (x-axis) for the ACR 20 outcome at 24 weeks



Note: Lines are provided by a weighted linear regression, with weights being inversely proportional to the variance in each estimate.

Supplementary Figure 28: Meta-regression (L'Abbé) plots of log odds ratios (y-axis) against the underlying covariate value (x-axis) for the ACR 50 outcome at 24 weeks



Note: Lines are provided by a weighted linear regression, with weights being inversely proportional to the variance in each estimate.

Appendix 6: Sensitivity analyses considering only trials assessing anti-TNF treatments

Supplementary Table 7: Estimate of covariate effect on treatment effects obtained with fixed effects meta-regression model, ACR 20, ACR 50, PASI 75 (sensitivity analyses considering only trials assessing anti-TNF treatments)

Covariate	ACR 20		ACR 50		PASI 75	
	12 weeks	24 weeks	12 weeks	24 weeks	12 weeks	24 weeks
Older age vs. younger	**0.47 (0.27, 0.79)**	0.80 (0.49, 1.35)	-	-	-	-
High % male vs. low	-	-	**2.22 (1.00, 5.44)**	1.64 (0.76, 3.80)	-	1.77 (0.56, 5.78)
High % Caucasian vs. low	-	-	-	-	**0.21 (0.06, 0.62)**	-
Longer psoriasis disease duration vs. shorter (years)	1.20 (0.58, 2.56)	0.82 (0.35, 2.01)	-	1.52 (0.44, 6.83)	-	-
Longer PsA disease duration vs. shorter (years)	1.31 (0.73, 2.36)	0.92 (0.49, 1.70)	1.22 (0.46, 3.41)	0.88 (0.34, 2.16)	-	-
High swollen joint count vs. low	-	-	2.23 (0.93, 5.70)	1.87 (0.91, 4.01)	**6.57 (1.92, 22.31)**	3.06 (0.96, 9.15)
High tender joint count vs. low	-	-	-	-	**6.57 (1.92, 22.31)**	3.06 (0.96, 9.15)
High % steroid use vs. low	-	-	-	-	-	-
High % methotrexate use vs. low	-	-	-	-	-	-
High prior anti-TNF use vs. low	**0.46 (0.26, 0.82)**	0.64 (0.35, 1.13)	**0.28 (0.12, 0.64)**	-	-	**0.14 (0.05, 0.42)**
High baseline DAS vs. low	-	-	-	0.72 (0.34, 1.50)	-	-
Later publication year vs. early	**0.49 (0.30, 0.80)**	0.93 (0.55, 1.54)	**0.38 (0.18, 0.79)**	0.51 (0.26, 1.04)	-	-

Values are represented as odds ratio (95% credible interval). All bolded values are statistically meaningful at the 0.05 significance level. Analyses were performed using dichotomized versions of continuous measures (dichotomized at the median). Direction of values: Values above 1.00 indicate an increase in the treatment effect due to the selected covariate; values below 1.00 indicate a decrease in the treatment effect due to the selected covariate.

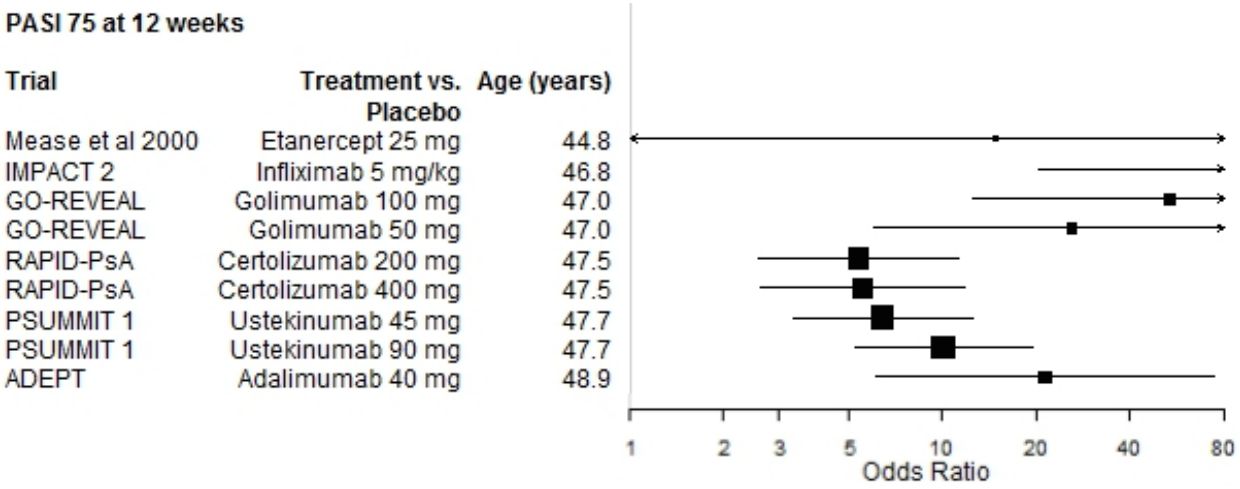
Supplementary Table 8: Estimate of covariate effect on treatment effects obtained with fixed effects meta-regression model, SF-36 PCS, SF-36 MCS (sensitivity analyses considering only trials assessing anti-TNF treatments)

Covariate	SF-36 PCS		SF-36 MCS	
	12 weeks	24 weeks	12 weeks	24 weeks
Older age vs. younger	0.18 (-1.84, 2.15)	-	-2.00 (-4.24, 0.21)	-1.08 (-2.70, 0.55)
High % male vs. low	-	-	-	-
High % Caucasian vs. low	-	-	1.45 (-0.87, 3.74)	-
Longer psoriasis disease duration vs. shorter (years)	-	**5.05 (3.75, 6.36)**	-	-
Longer PsA disease duration vs. shorter (years)	-	**4.74 (3.46, 6.02)**	-	-
High swollen joint count vs. low	-	-	-	-
High tender joint count vs. low	-	-	-	-
High % steroid use vs. low	-	-	-	-
High % methotrexate use vs. low	-	-	-	-
High prior anti-TNF use vs. low	-	-	-	-
High baseline DAS vs. low	-	**2.00 (0.45, 3.57)**	-	-
Later publication year vs. early	-	**-4.25 (-5.43, -3.06)**	-	-

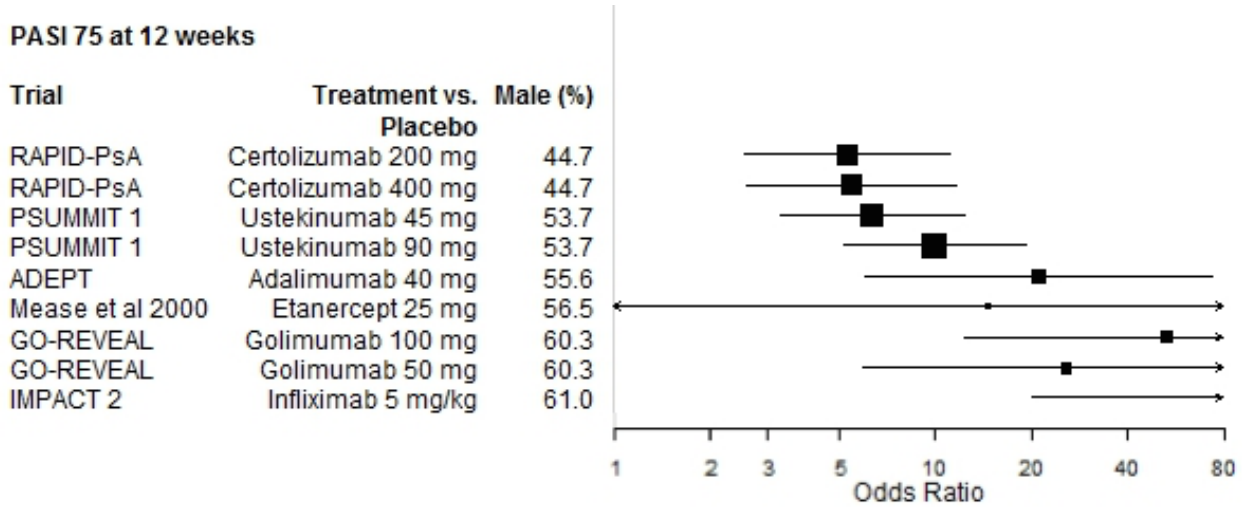
Values are represented as odds ratio (95% credible interval). All bolded values are statistically meaningful at the 0.05 significance level. Analyses were performed using dichotomized versions of continuous measures (dichotomized at the median). Direction of values: Positive values indicate an increase in the treatment effect due to the selected covariate; negative values indicate a decrease in the treatment effect due to the selected covariate.

Appendix 7: Forest plots for PASI 75

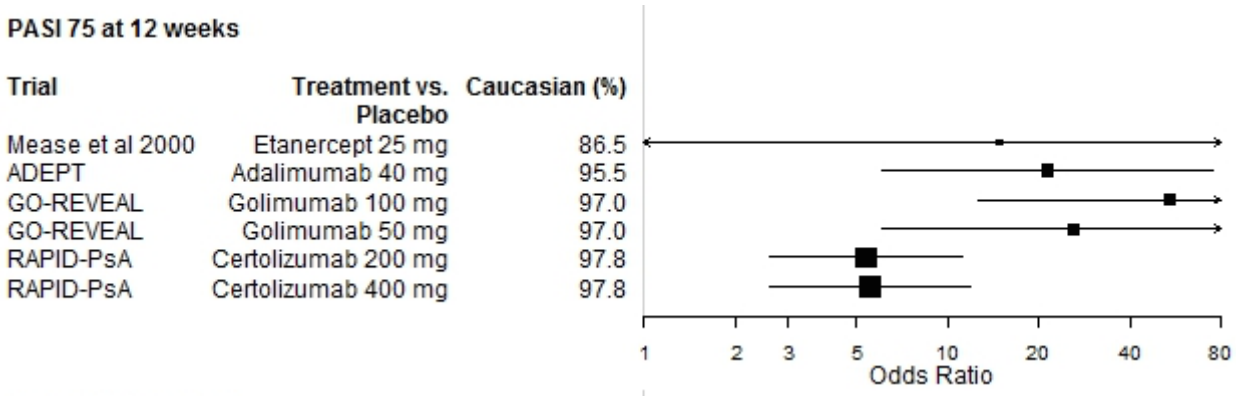
Supplementary Figure 29: Forest plot of odds ratios for PASI 75 at 12 weeks for age (years)



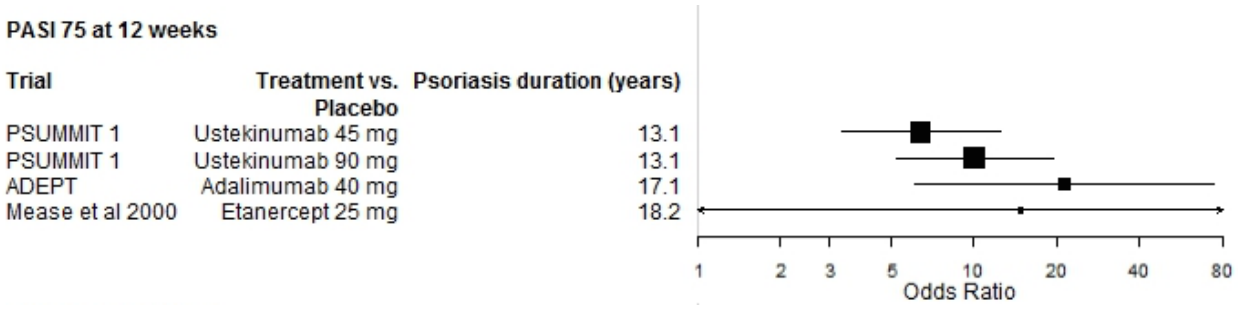
Supplementary Figure 30: Forest plot of odds ratios for PASI 75 at 12 weeks for male (%)



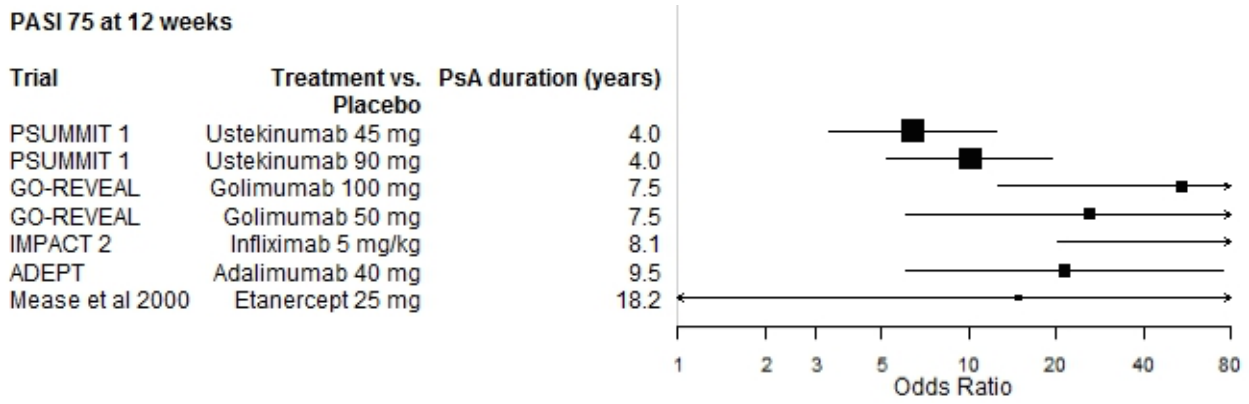
Supplementary Figure 31: Forest plot of odds ratios for PASI 75 at 12 weeks for Caucasian (%)



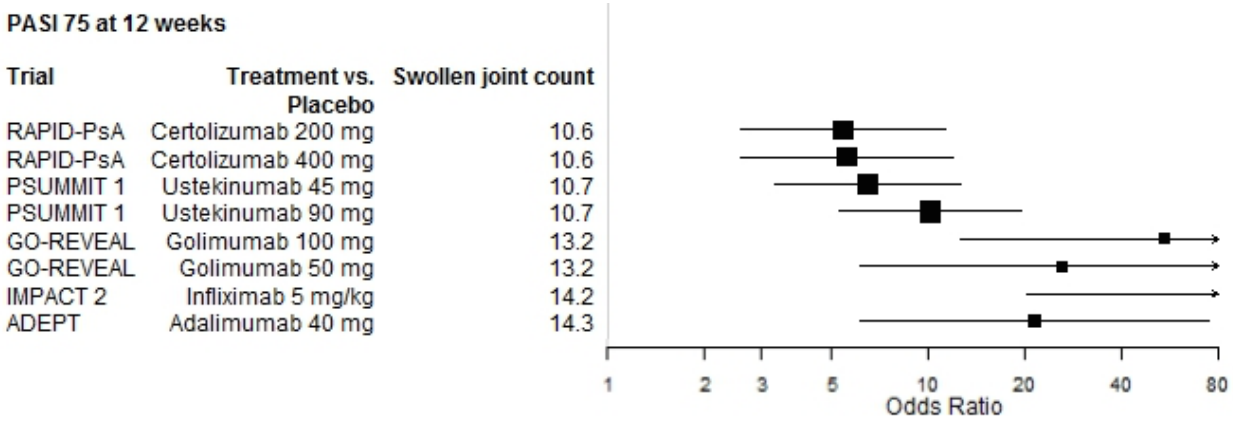
Supplementary Figure 32: Forest plot of odds ratios for PASI 75 at 12 weeks for psoriasis disease duration (years)



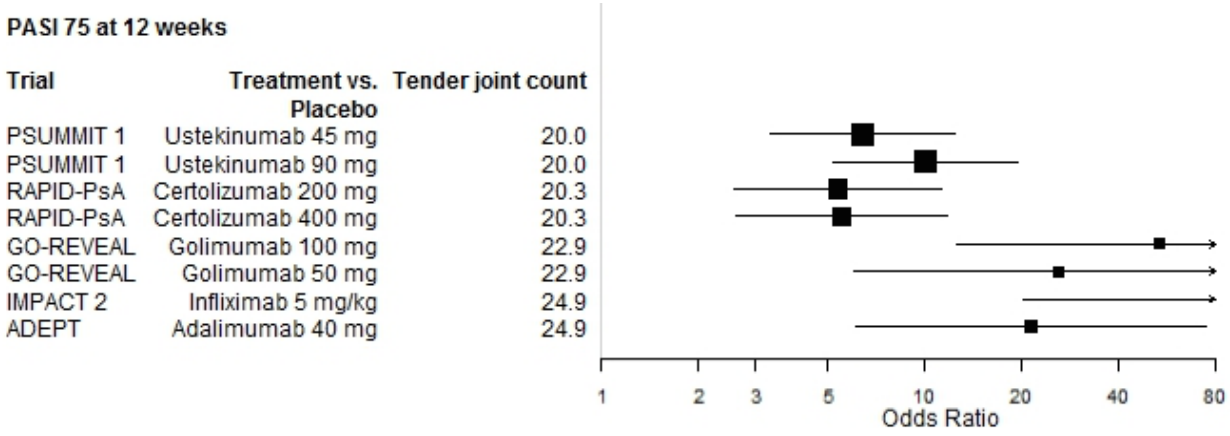
Supplementary Figure 33: Forest plot of odds ratios for PASI 75 at 12 weeks for PsA disease duration (years)



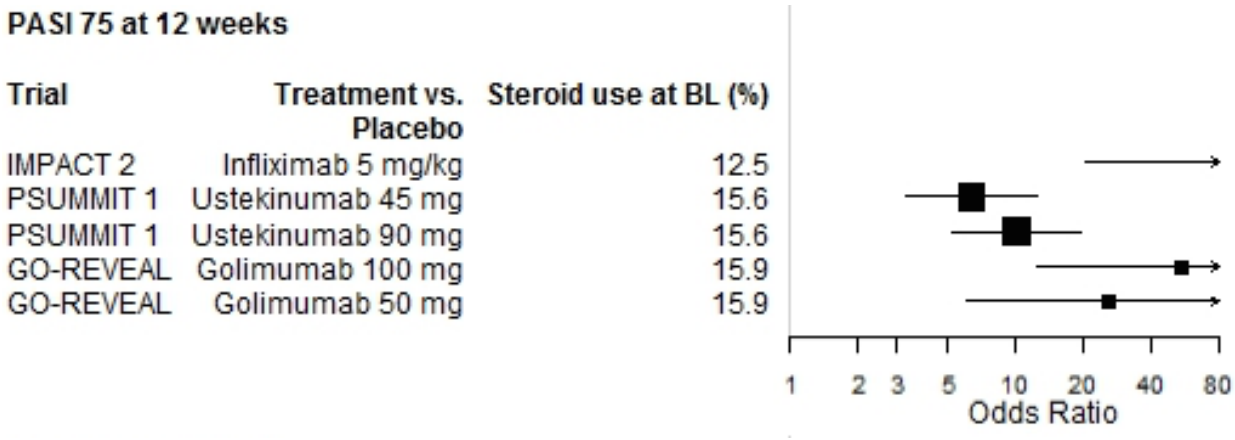
Supplementary Figure 34: Forest plot of odds ratios for PASI 75 at 12 weeks for swollen joint count



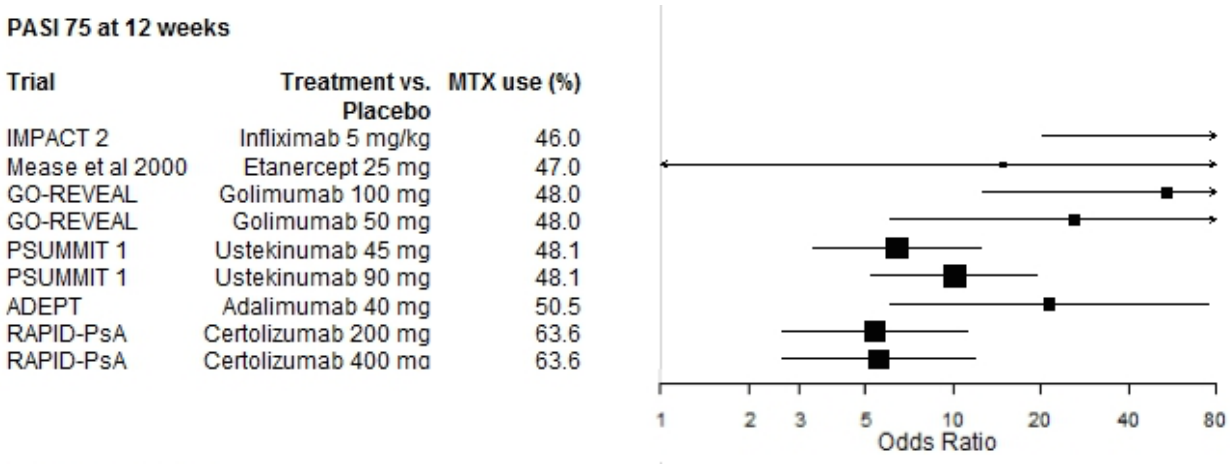
Supplementary Figure 35: Forest plot of odds ratios for PASI 75 at 12 weeks for tender joint count



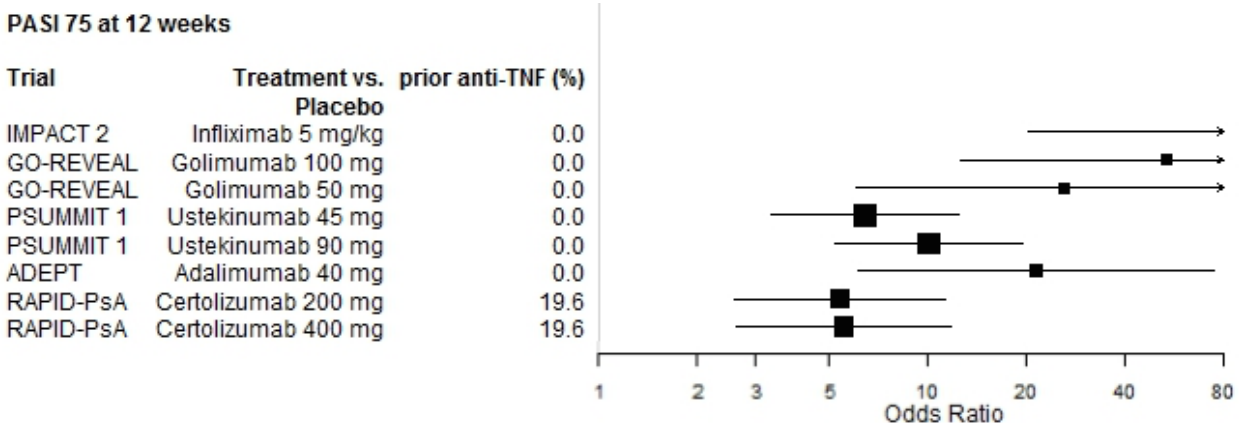
Supplementary Figure 36: Forest plot of odds ratios for PASI 75 at 12 weeks for steroid use at baseline (%)



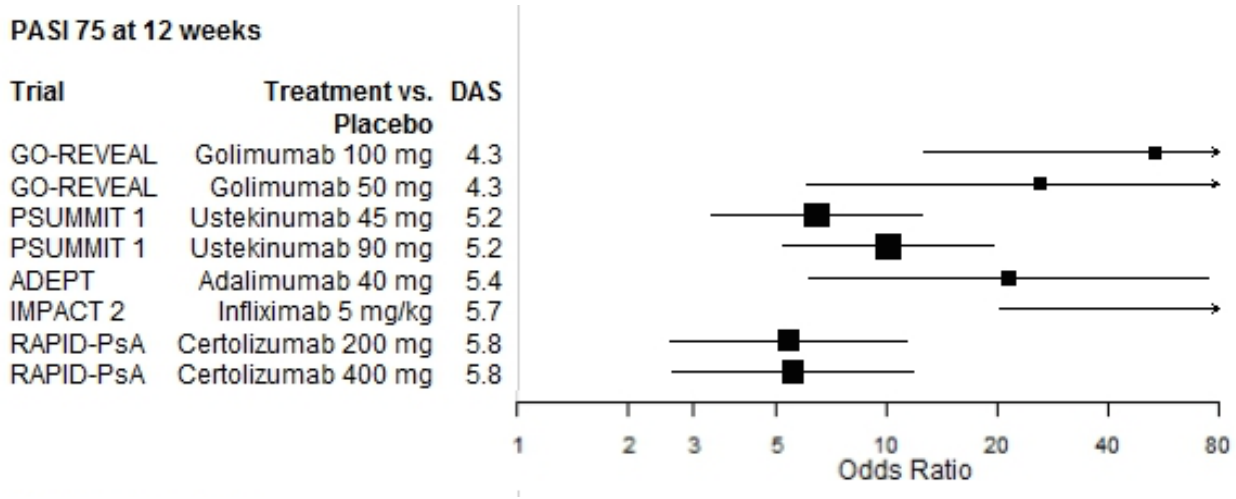
Supplementary Figure 37: Forest plot of odds ratios for PASI 75 at 12 weeks for methotrexate use (%)



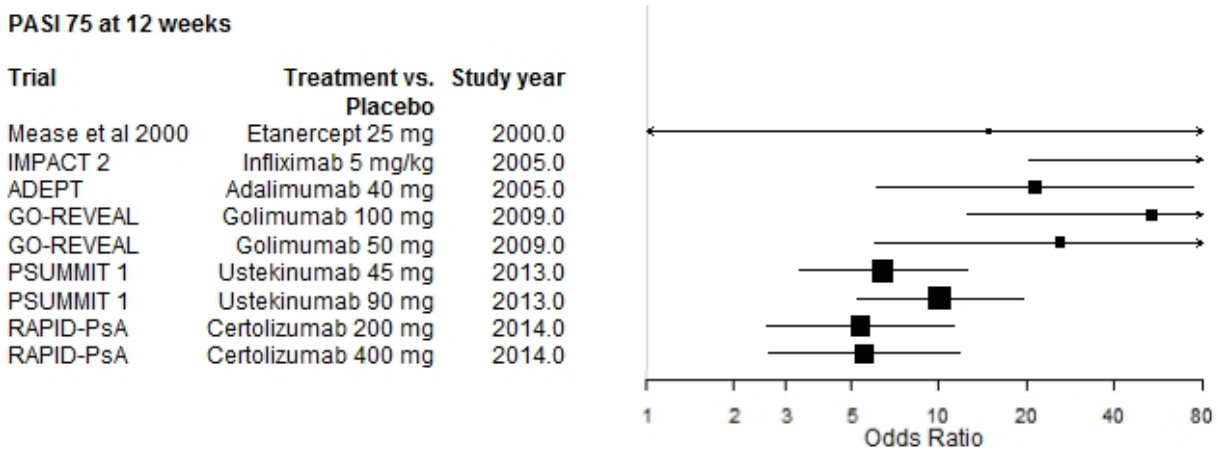
Supplementary Figure 38: Forest plot of odds ratios for PASI 75 at 12 weeks for prior anti-TNF use (%)



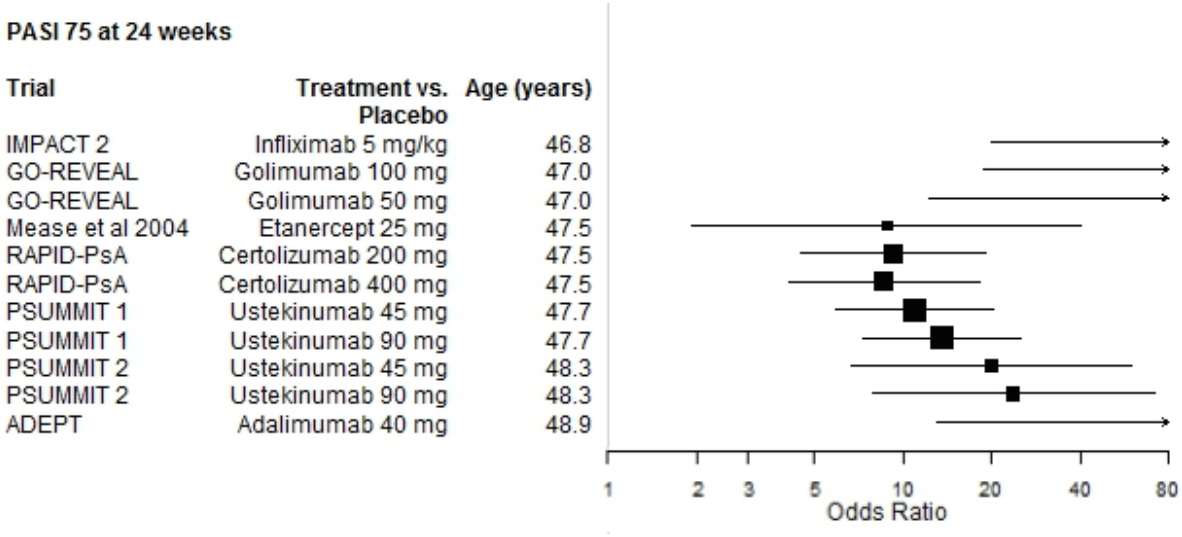
Supplementary Figure 39: Forest plot of odds ratios for PASI 75 at 12 weeks for DAS



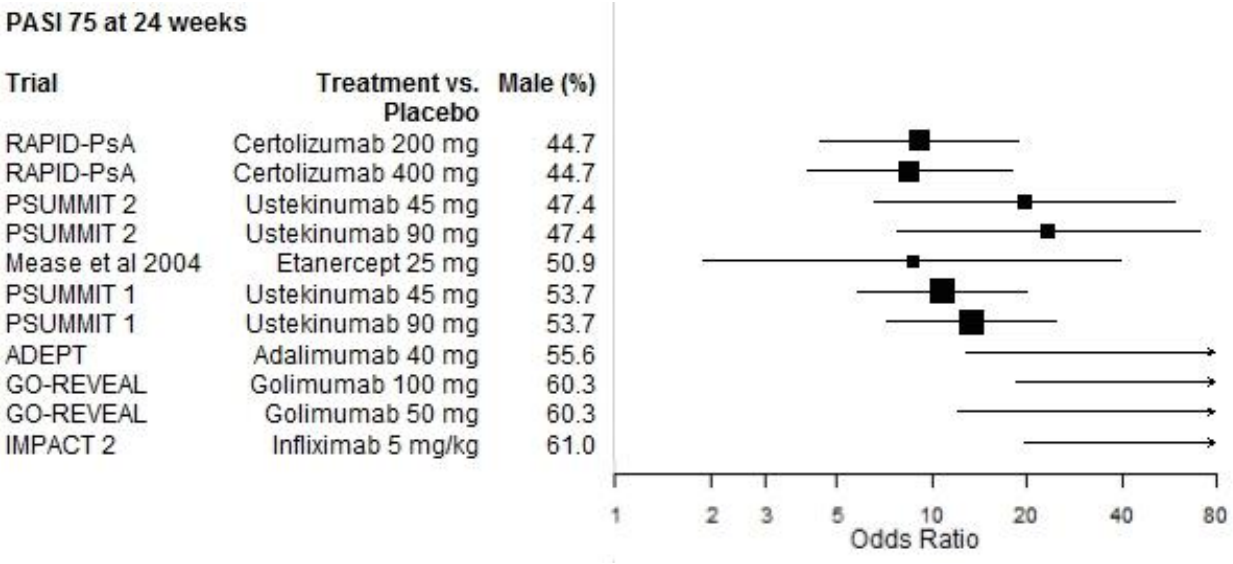
Supplementary Figure 40: Forest plot of odds ratios for PASI 75 at 12 weeks for publication year



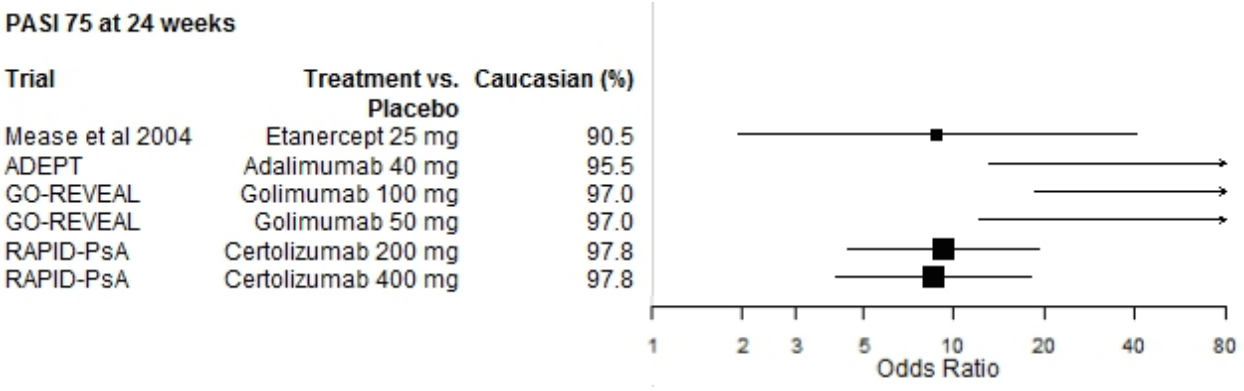
Supplementary Figure 41: Forest plot of odds ratios for PASI 75 at 24 weeks for age (years)



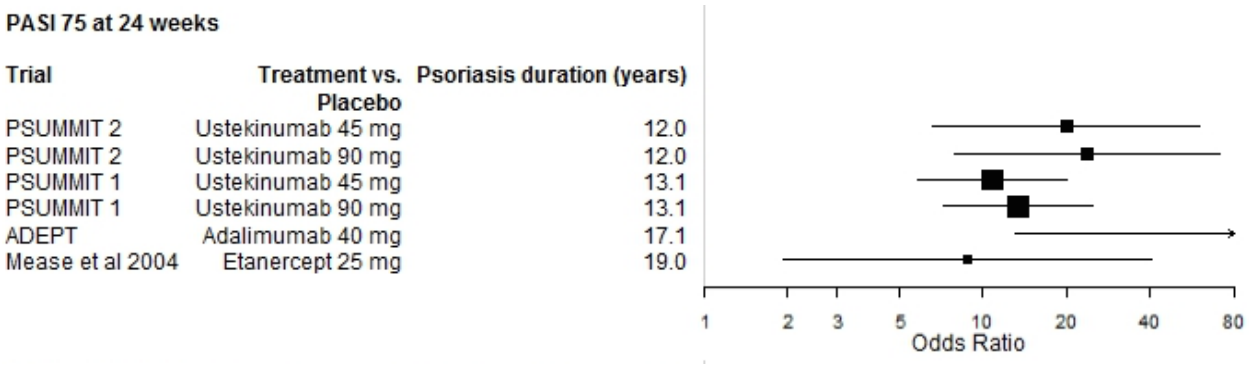
Supplementary Figure 42: Forest plot of odds ratios for PASI 75 at 24 weeks for male (%)



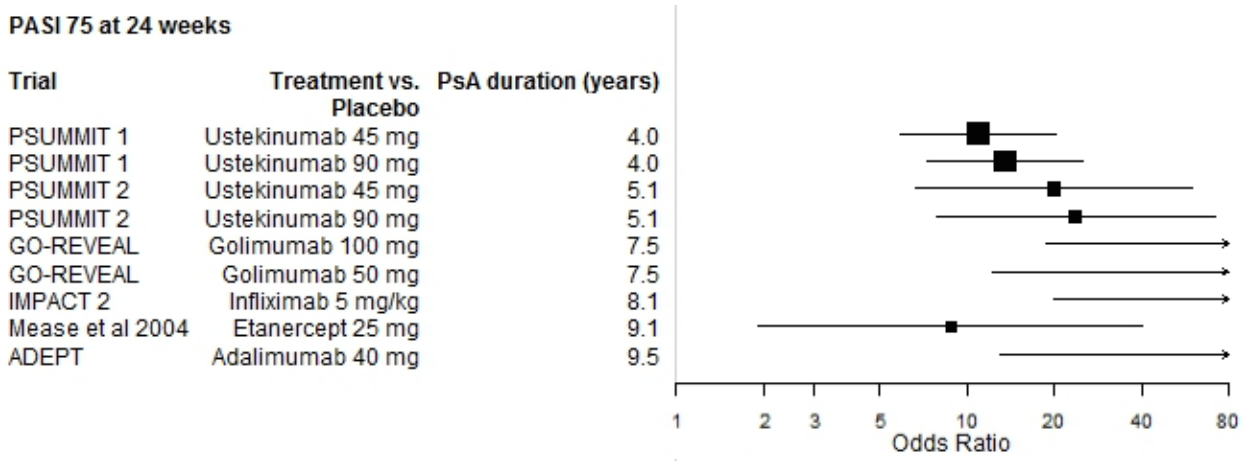
Supplementary Figure 43: Forest plot of odds ratios for PASI 75 at 24 weeks for Caucasian (%)



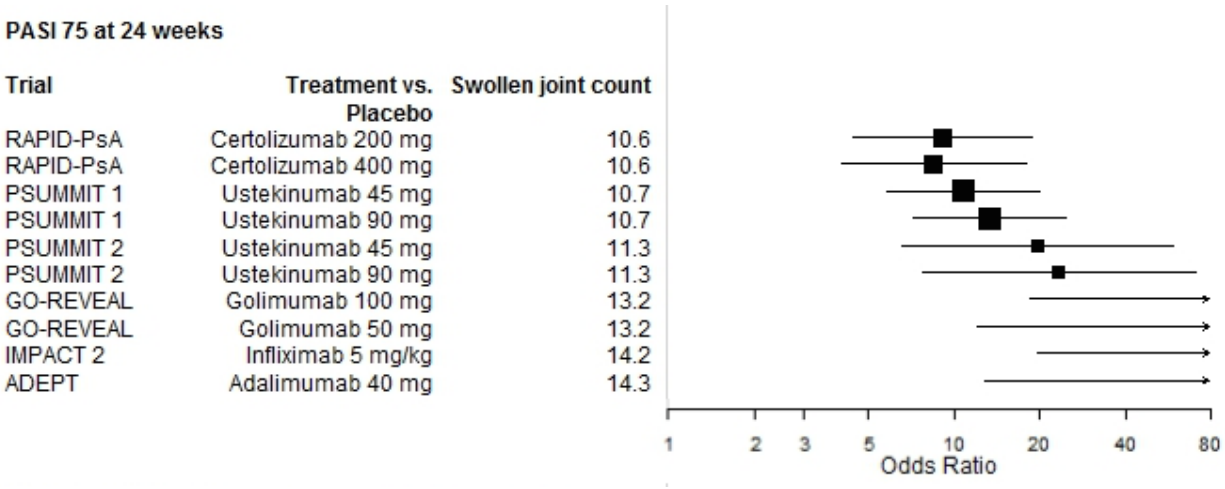
Supplementary Figure 44: Forest plot of odds ratios for PASI 75 at 24 weeks for psoriasis disease duration (years)



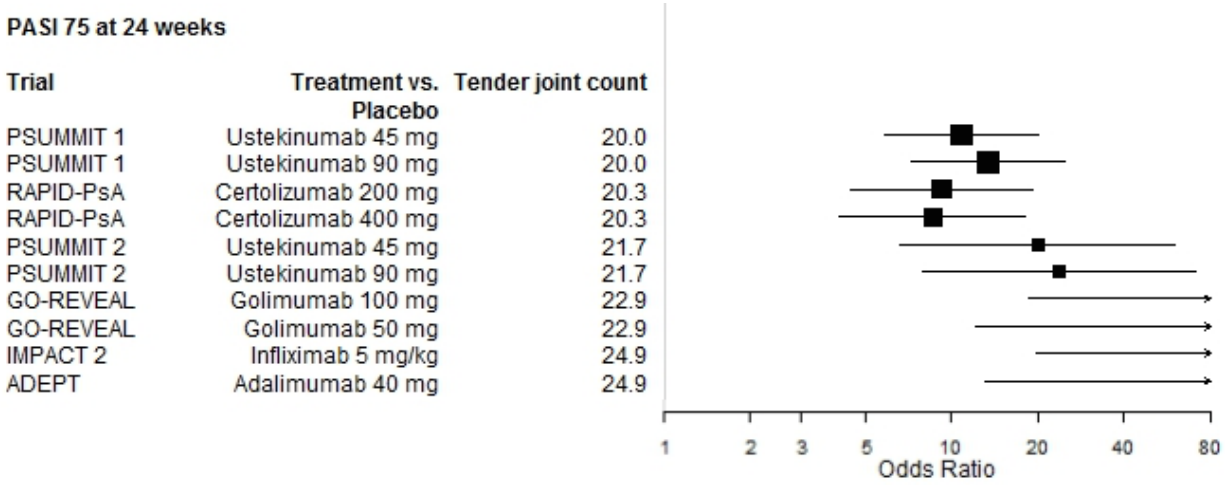
Supplementary Figure 45: Forest plot of odds ratios for PASI 75 at 24 weeks for PsA disease duration (years)



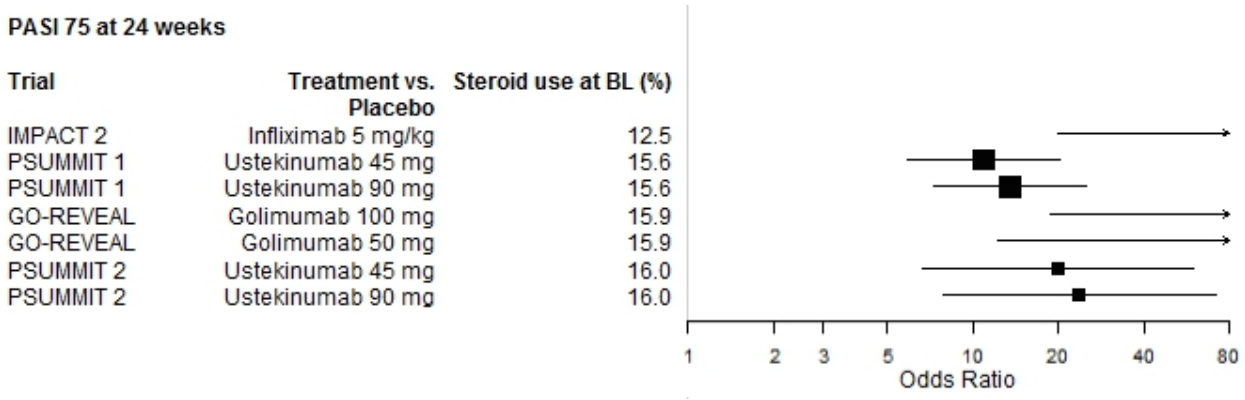
Supplementary Figure 46: Forest plot of odds ratios for PASI 75 at 24 weeks for swollen joint count



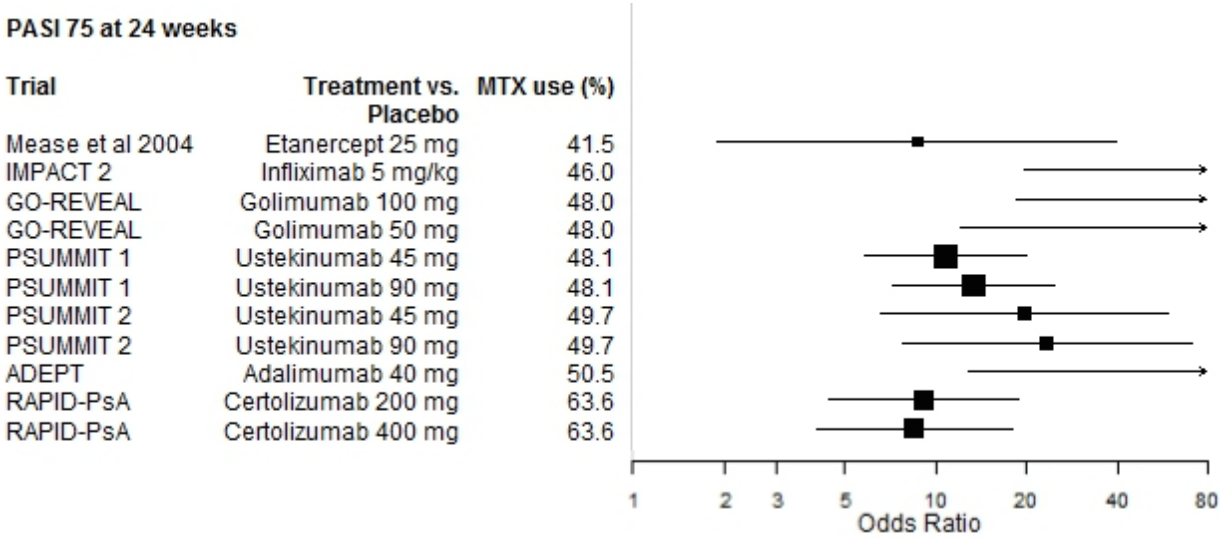
Supplementary Figure 47: Forest plot of odds ratios for PASI 75 at 24 weeks for tender joint count



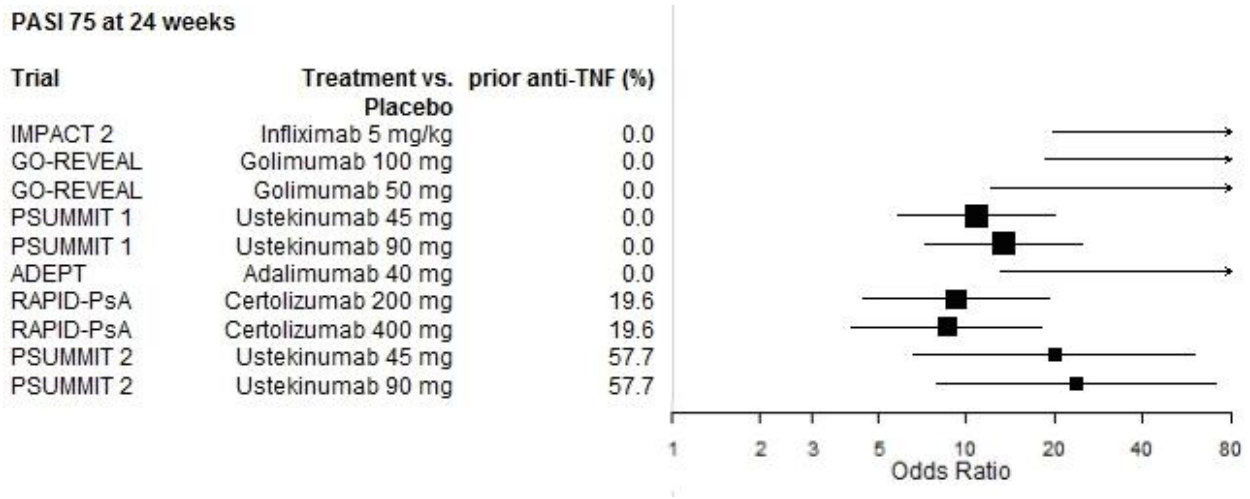
Supplementary Figure 48: Forest plot of odds ratios for PASI 75 at 24 weeks for steroid use at baseline (%)



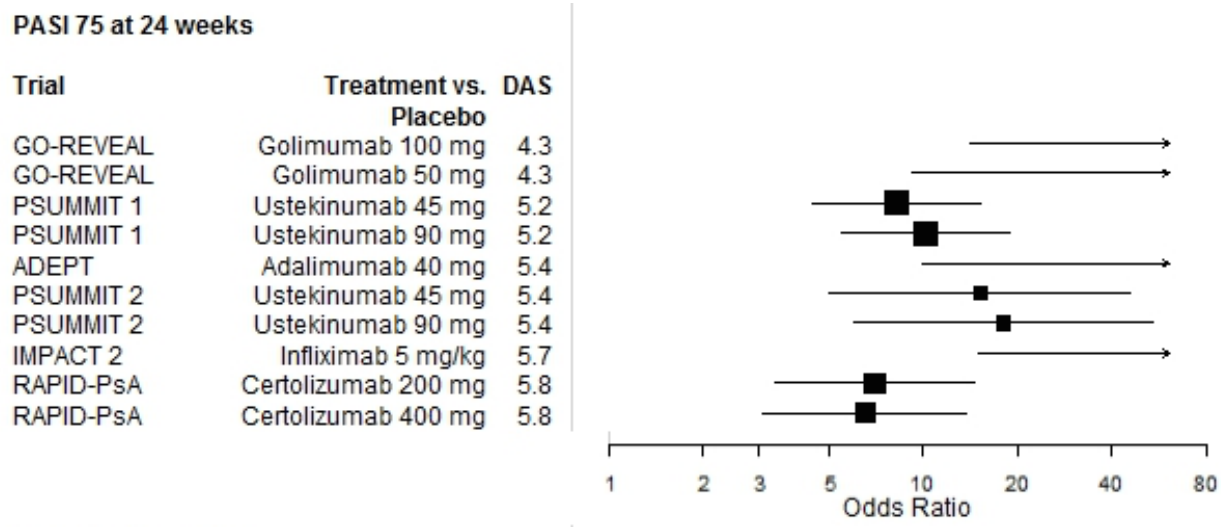
Supplementary Figure 49: Forest plot of odds ratios for PASI 75 at 24 weeks for methotrexate use (%)



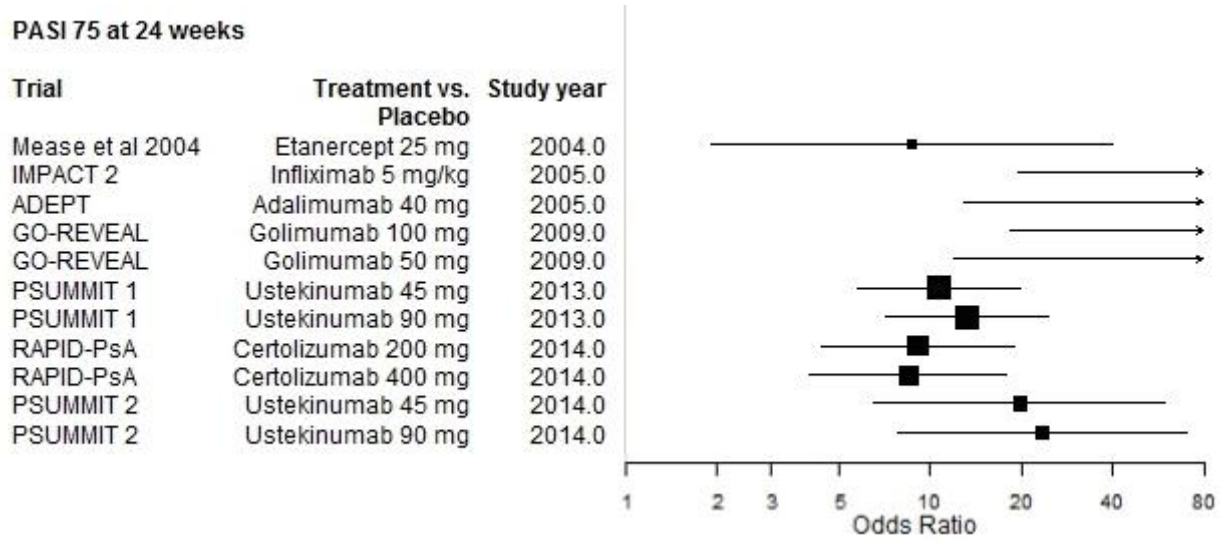
Supplementary Figure 50: Forest plot of odds ratios for PASI 75 at 24 weeks for prior anti-TNF use (%)



Supplementary Figure 51: Forest plot of odds ratios for PASI 75 at 24 weeks for DAS

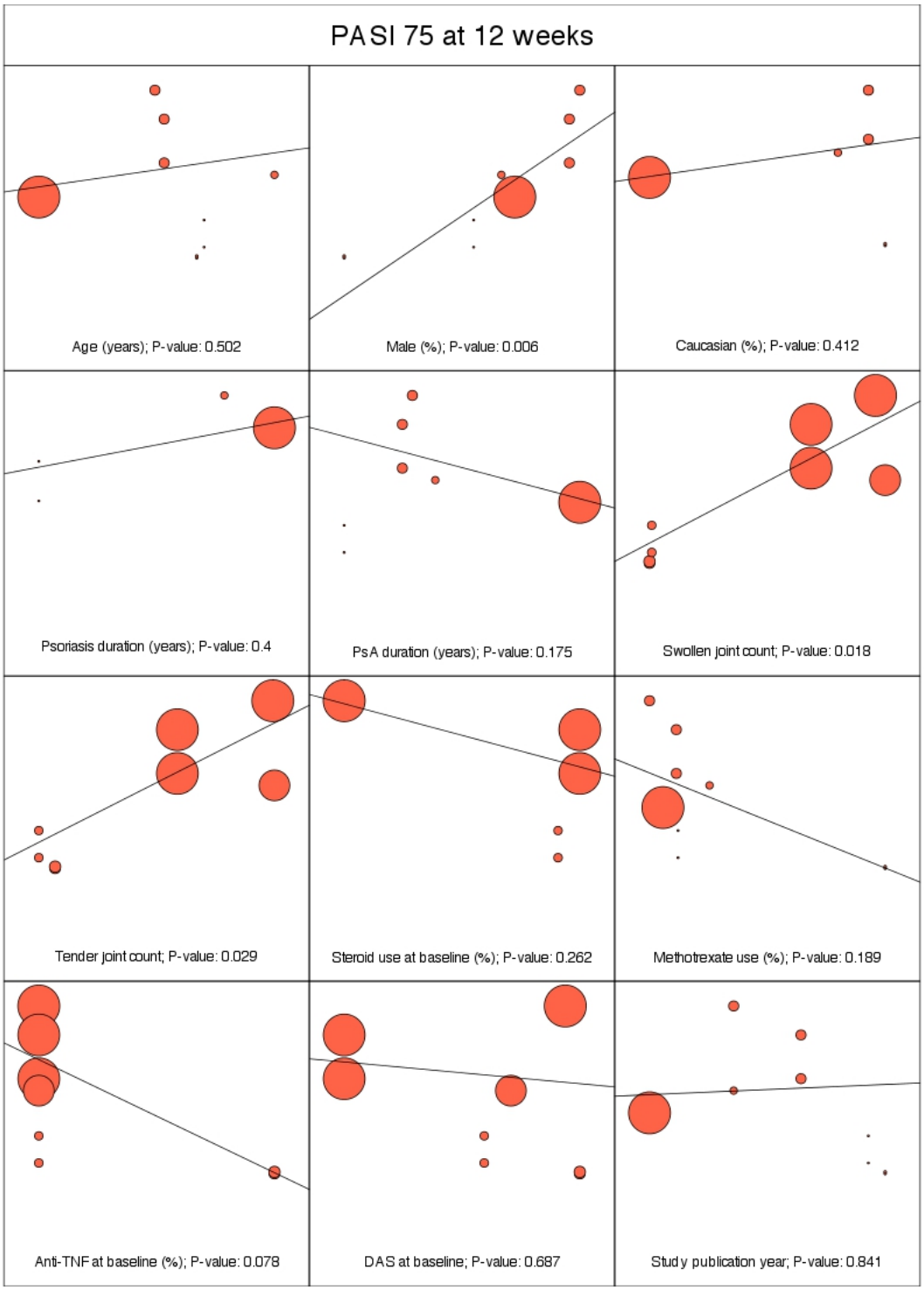


Supplementary Figure 52: Forest plot of odds ratios for PASI 75 at 24 weeks for publication year



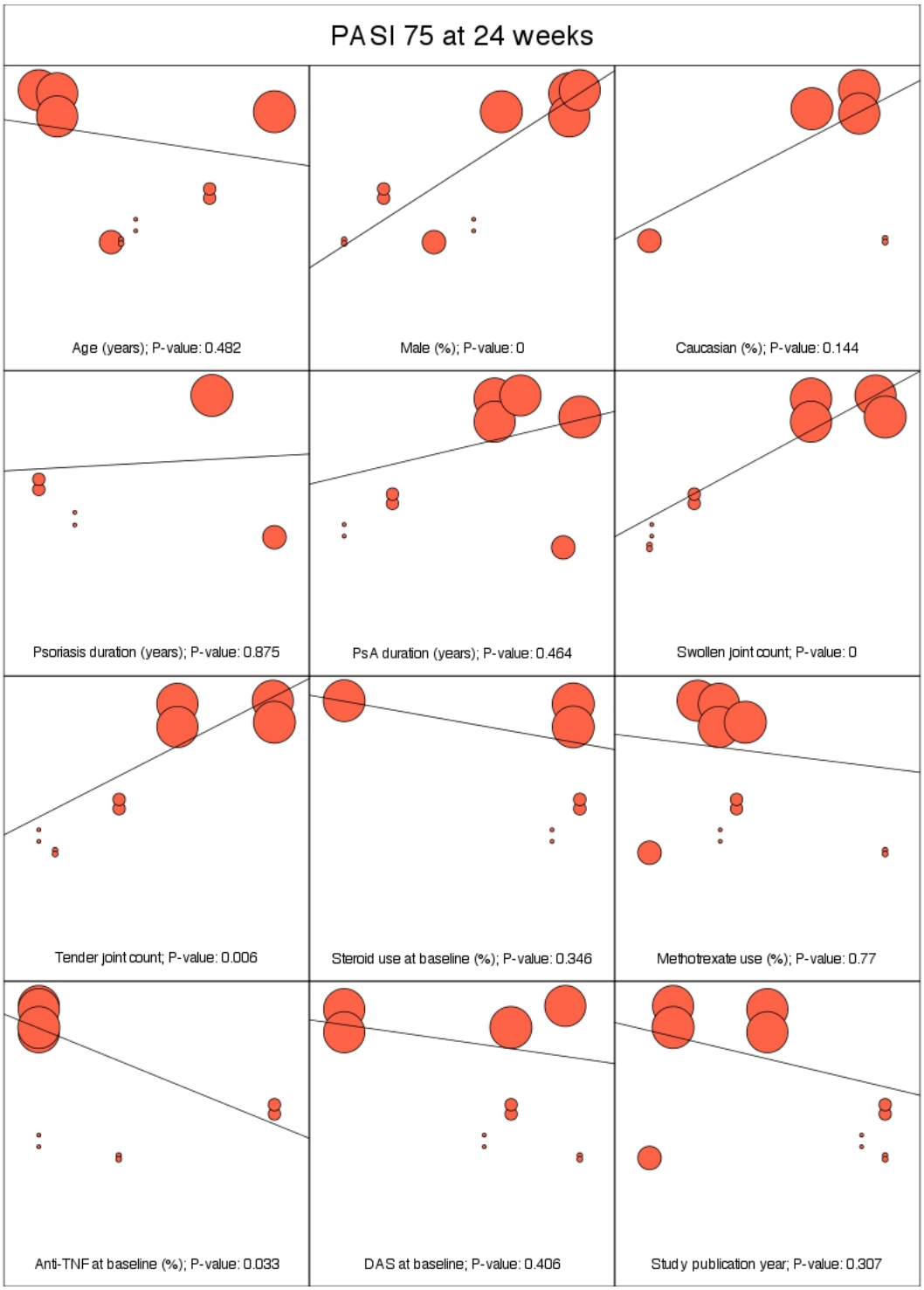
Appendix 8: L'Abbe plots for PASI 75

Supplementary Figure 53: Meta-regression (L'Abbé) plots of log odds ratios (y-axis) against the underlying covariate value (x-axis) for the PASI 75 at 12 weeks



Note: Lines are provided by a weighted linear regression, with weights being inversely proportional to the variance in each estimate.

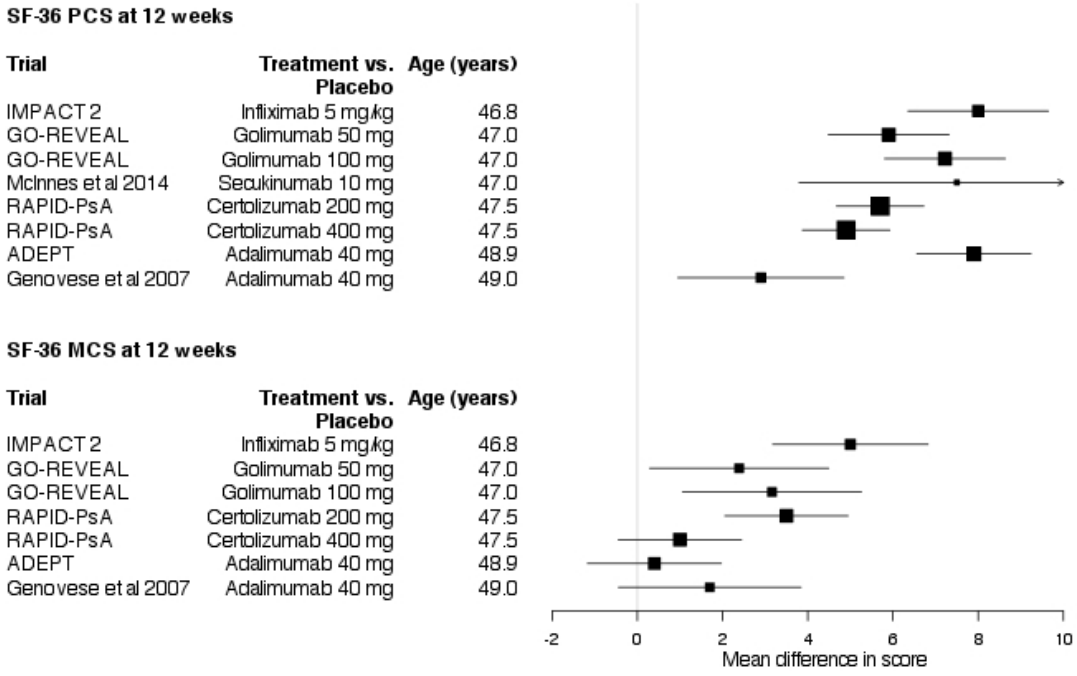
Supplementary Figure 54: Meta-regression (L'Abbé) plots of log odds ratios (y-axis) against the underlying covariate value (x-axis) for the PASI 75 at 24 weeks



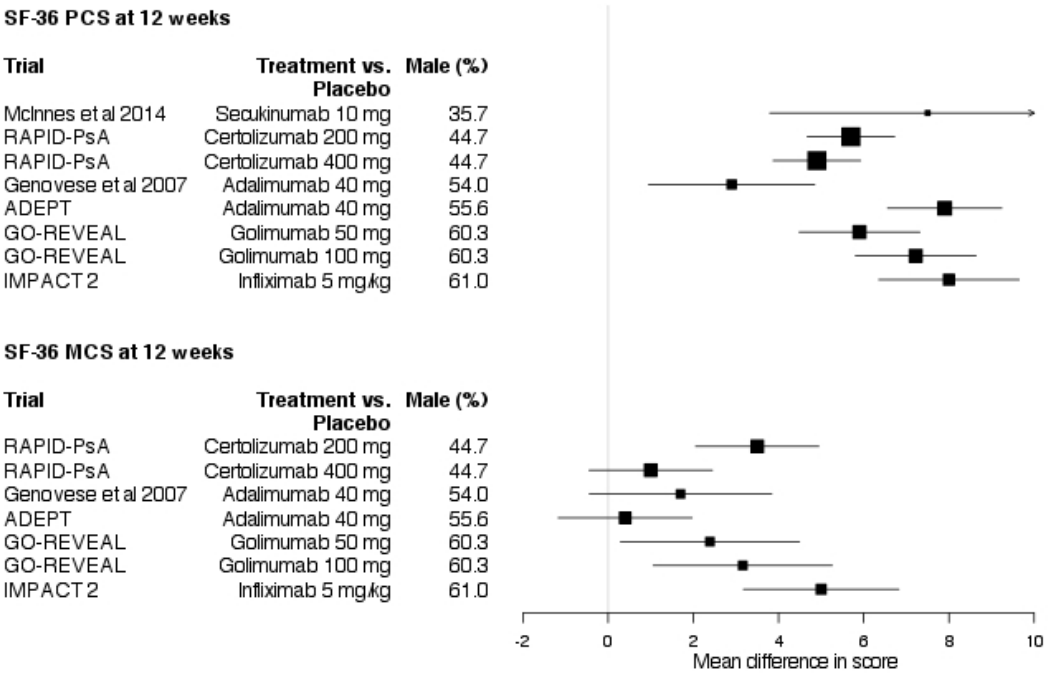
Note: Lines are provided by a weighted linear regression, with weights being inversely proportional to the variance in each estimate.

Appendix 9: Forest plots for SF-36 PCS and SF-36 MCS

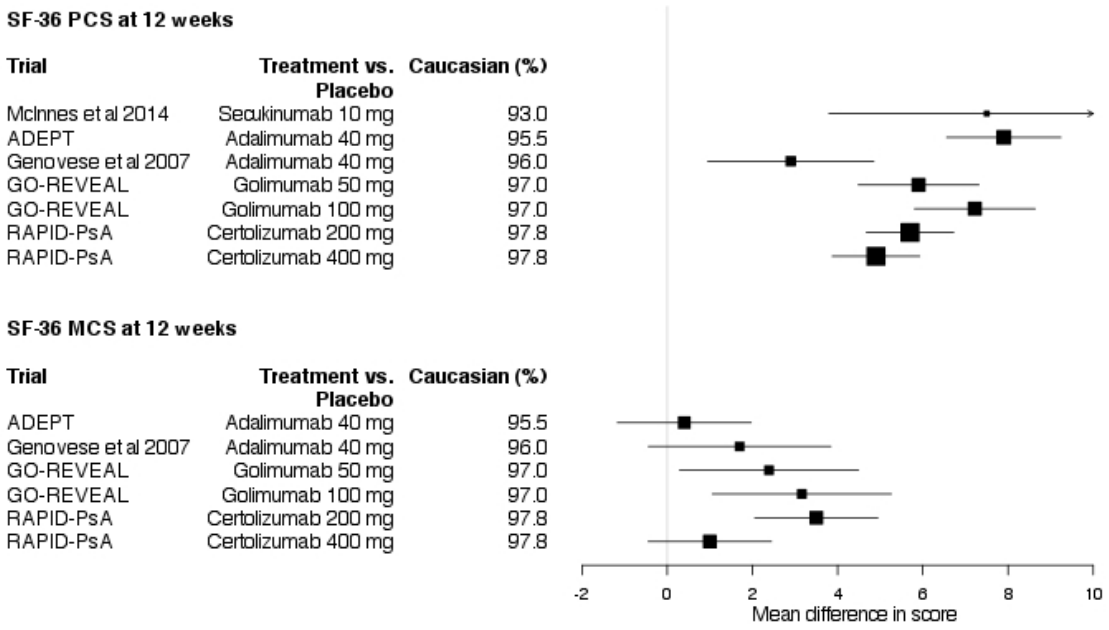
Supplementary Figure 55: Forest plot of mean change from baseline in SF-36 PCS and SF-36 MCS scores at 12 weeks for age (years)



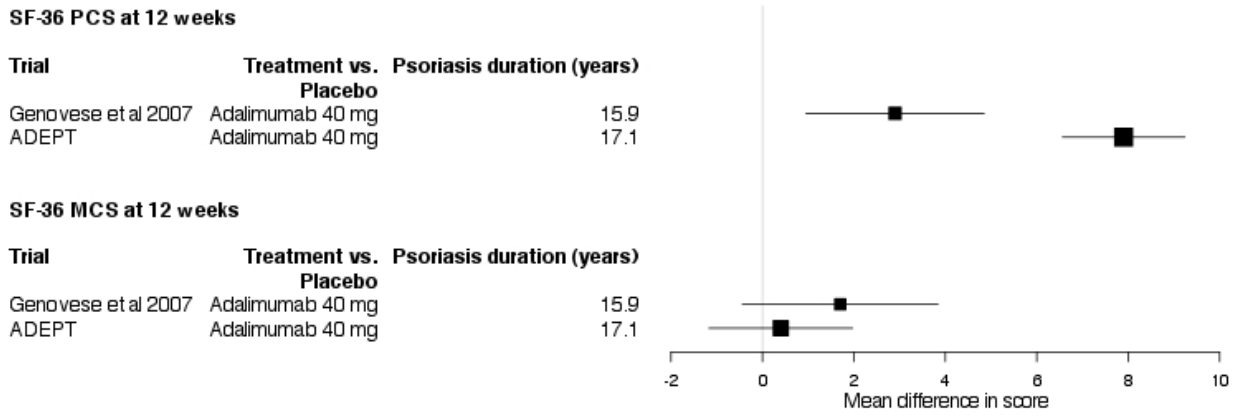
Supplementary Figure 56: Forest plot of mean change from baseline in SF-36 PCS and SF-36 MCS scores at 12 weeks for male (%)



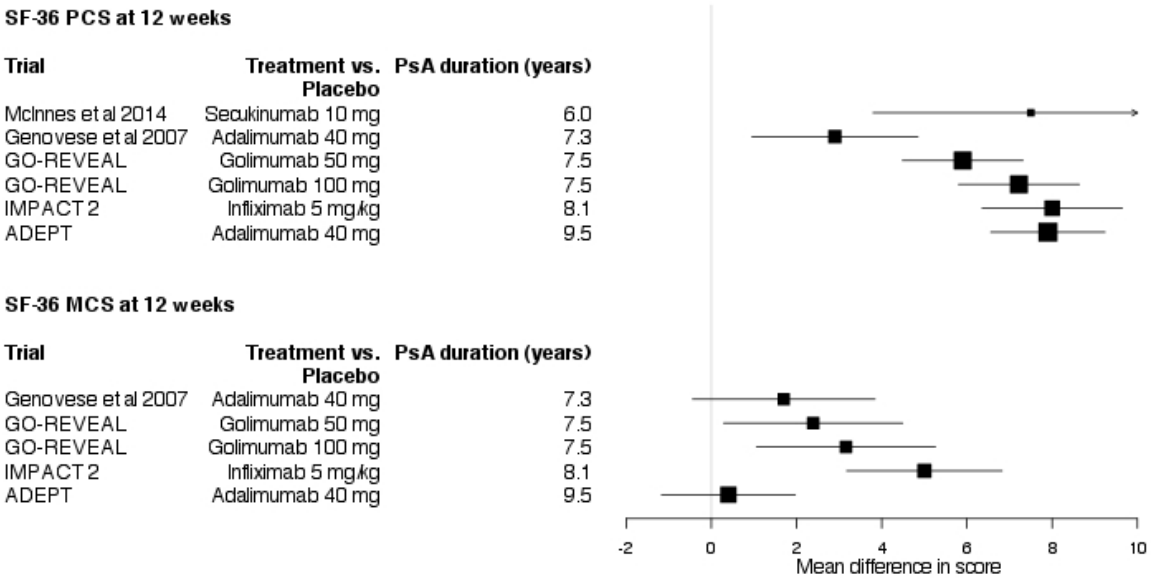
Supplementary Figure 57: Forest plot of mean change from baseline in SF-36 PCS and SF-36 MCS scores at 12 weeks for Caucasian (%)



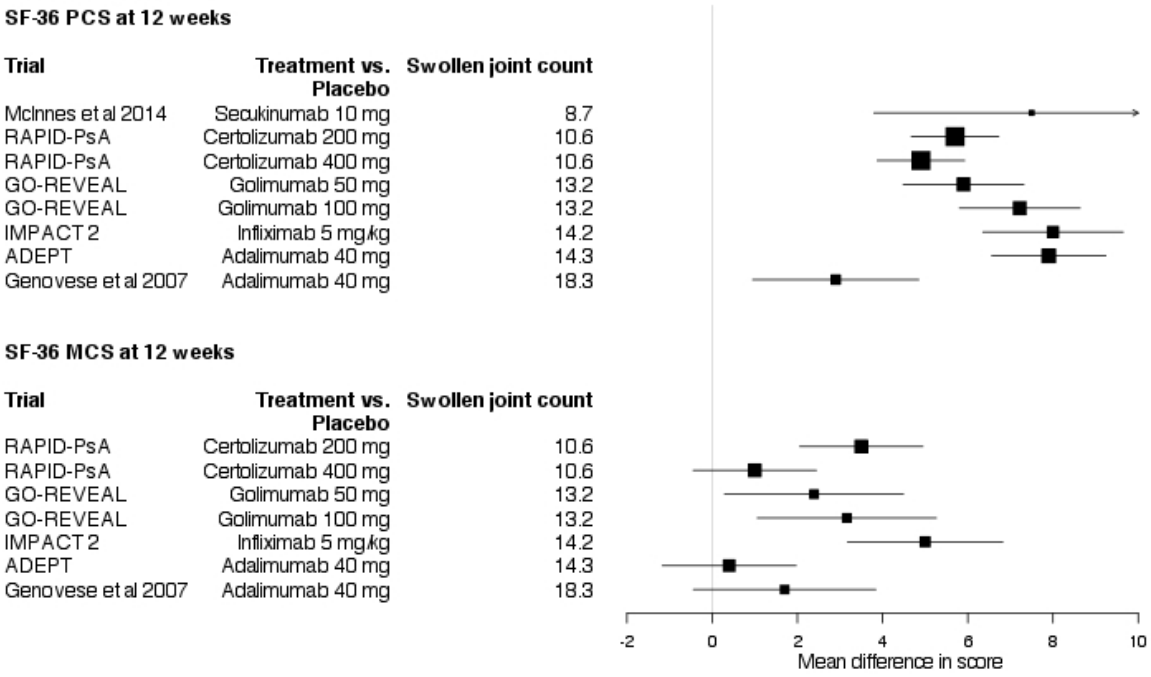
Supplementary Figure 58: Forest plot of mean change from baseline in SF-36 PCS and SF-36 MCS scores at 12 weeks for psoriasis disease duration (years)



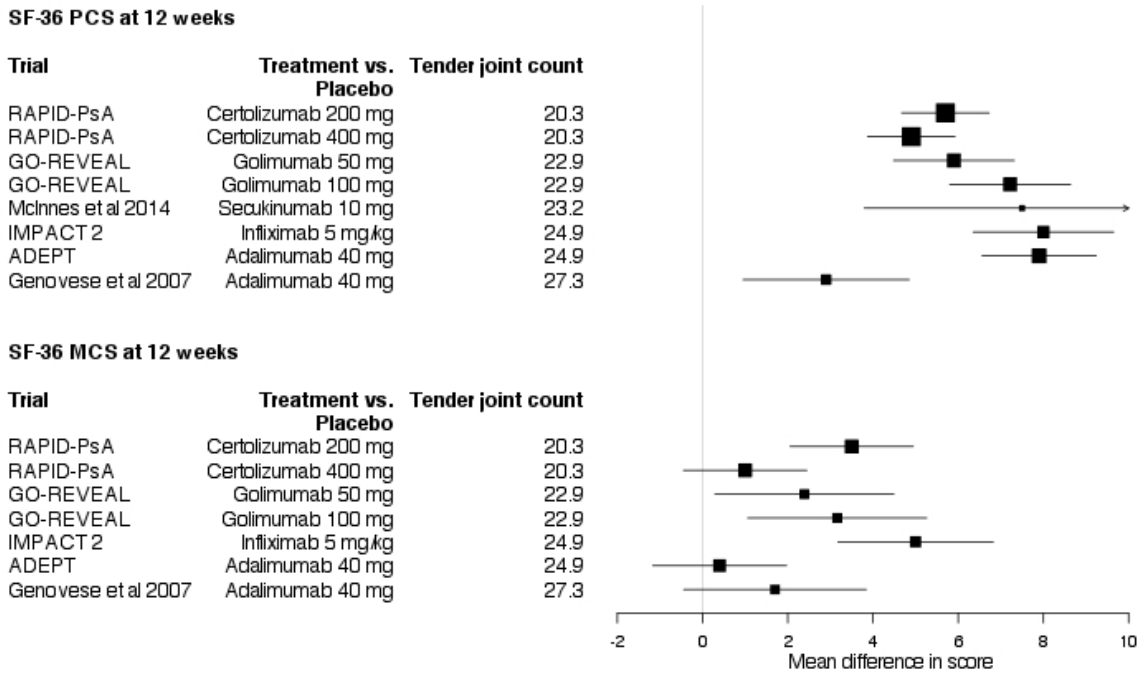
Supplementary Figure 59: Forest plot of mean change from baseline in SF-36 PCS and SF-36 MCS scores at 12 weeks for PsA disease duration (years)



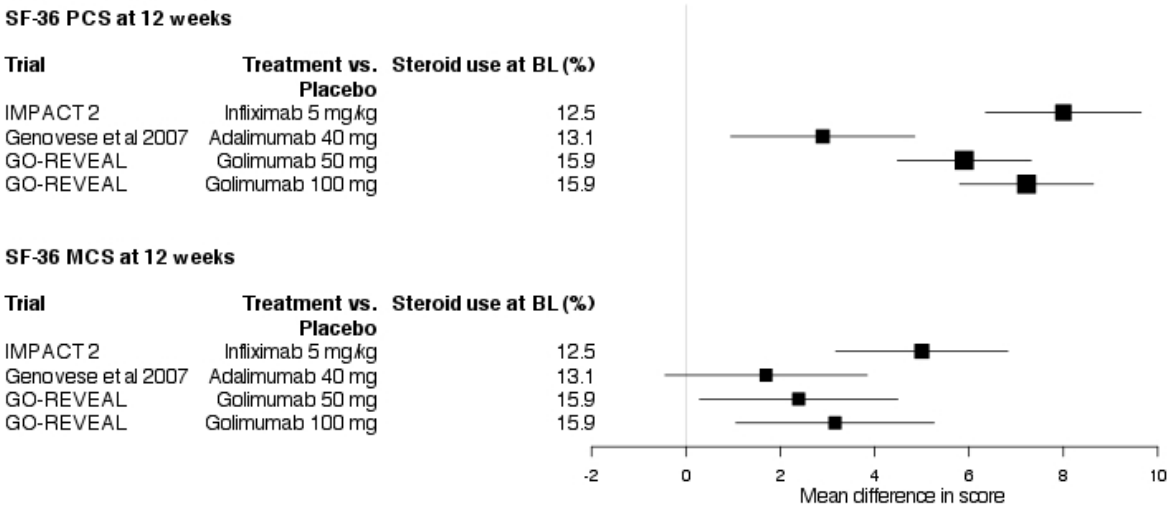
Supplementary Figure 60: Forest plot of mean change from baseline in SF-36 PCS and SF-36 MCS scores at 12 weeks for swollen joint count



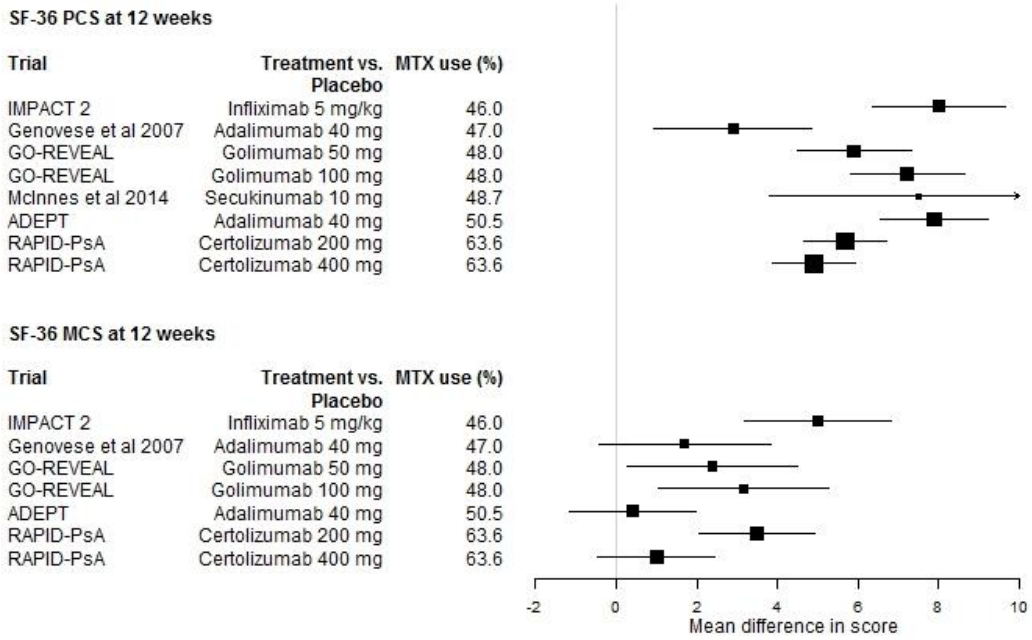
Supplementary Figure 61: Forest plot of mean change from baseline in SF-36 PCS and SF-36 MCS scores at 12 weeks for tender joint count



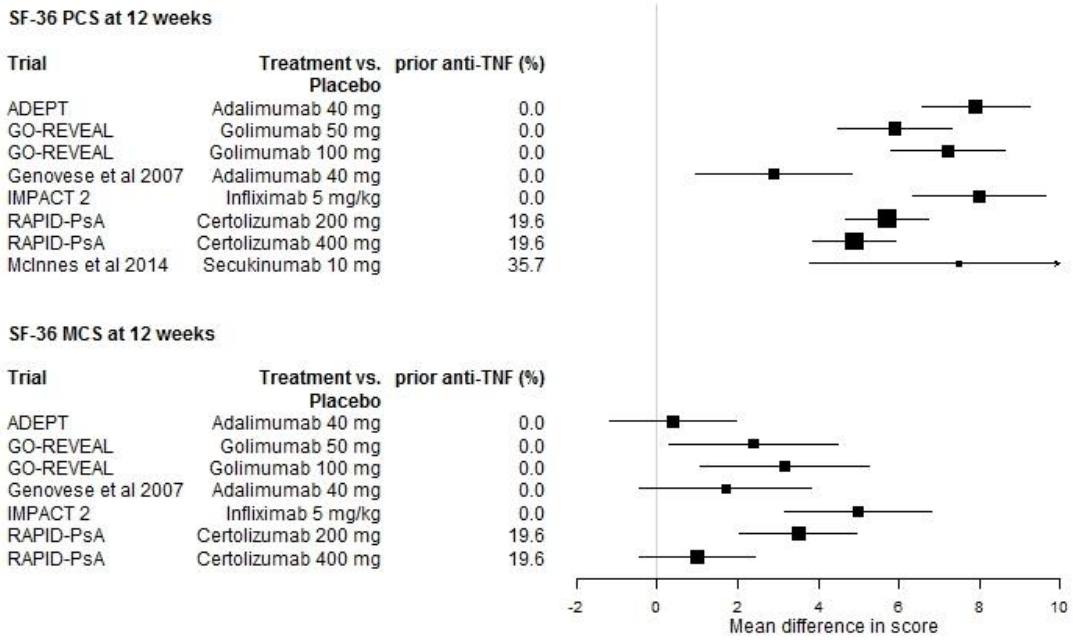
Supplementary Figure 62: Forest plot of mean change from baseline in SF-36 PCS and SF-36 MCS scores at 12 weeks for steroid use at baseline (%)



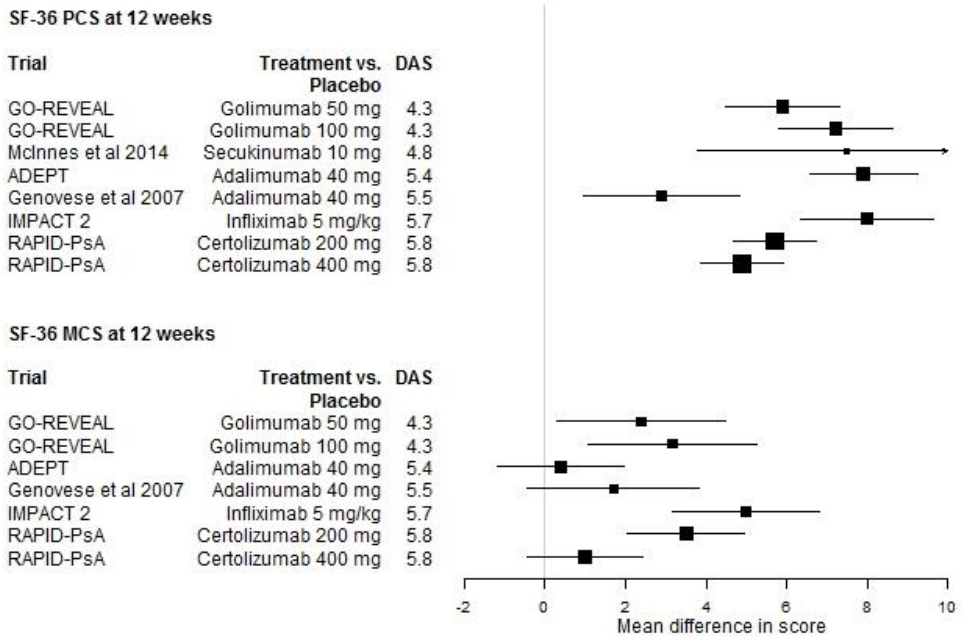
Supplementary Figure 63: Forest plot of mean change from baseline in SF-36 PCS and SF-36 MCS scores at 12 weeks for methotrexate use (%)



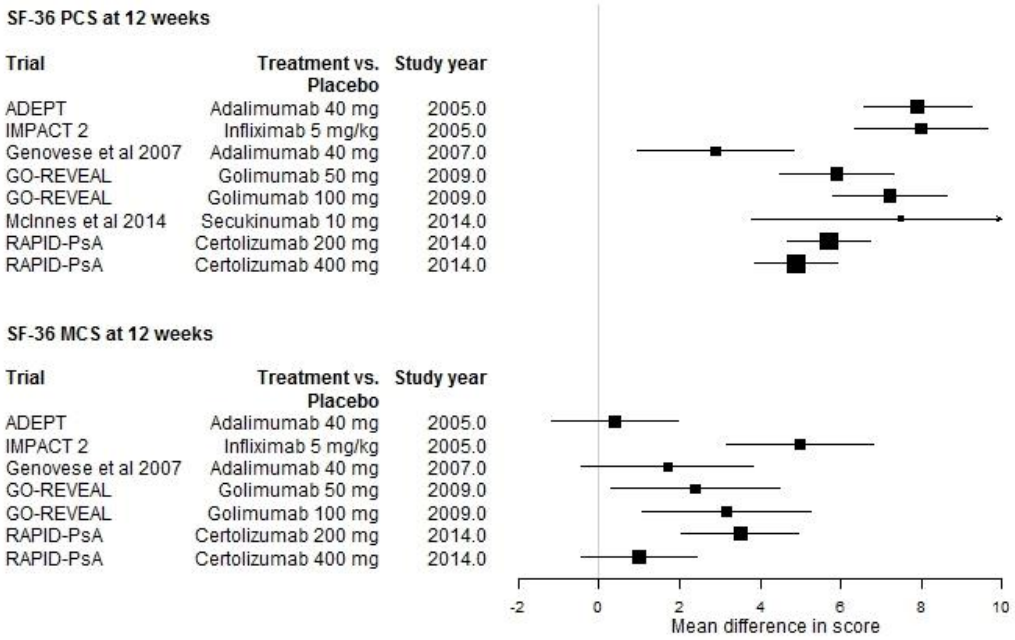
Supplementary Figure 64: Forest plot of mean change from baseline in SF-36 PCS and SF-36 MCS scores at 12 weeks for prior anti-TNF use (%)



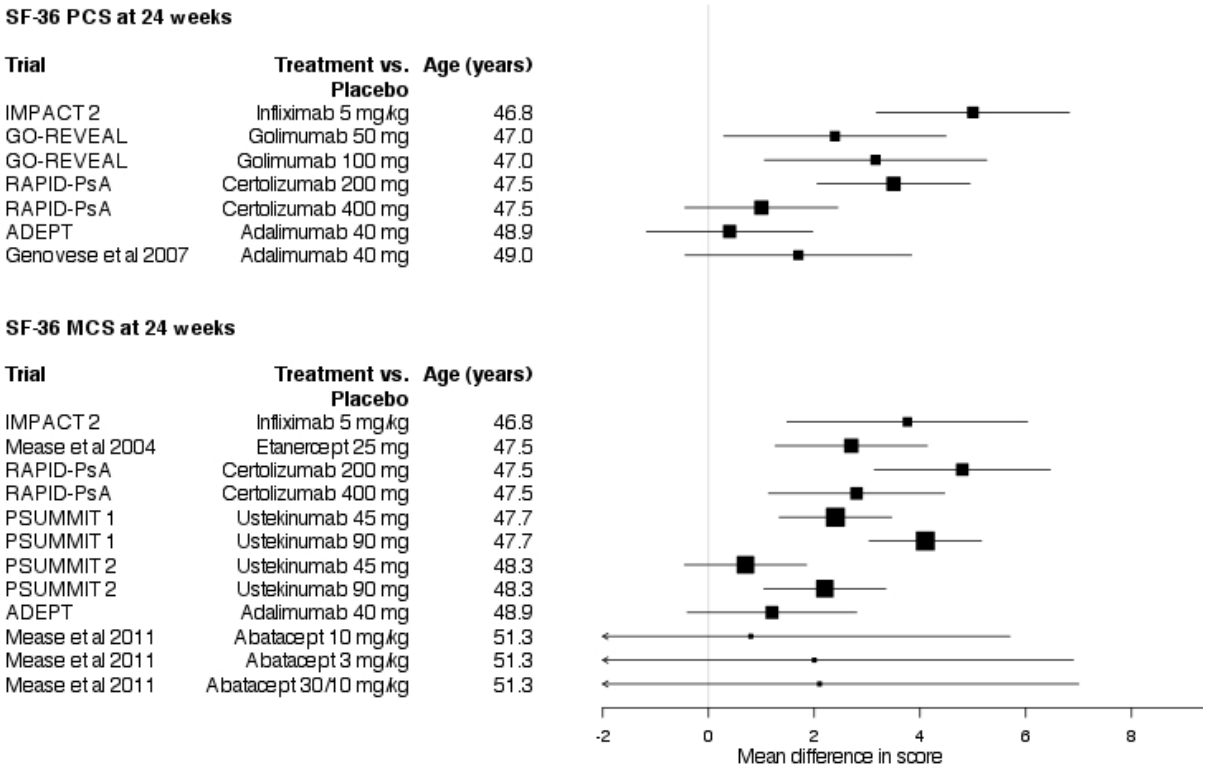
Supplementary Figure 65: Forest plot of mean change from baseline in SF-36 PCS and SF-36 MCS scores at 12 weeks for DAS



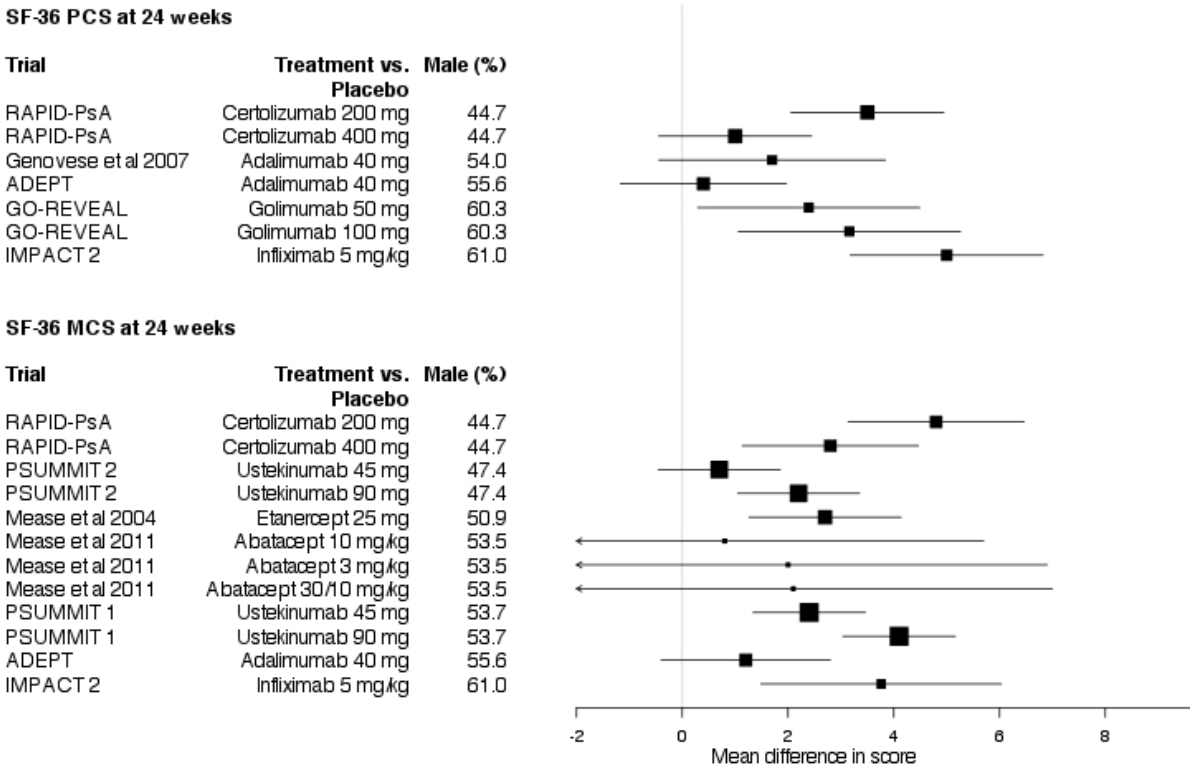
Supplementary Figure 66: Forest plot of mean change from baseline in SF-36 PCS and SF-36 MCS scores at 12 weeks for publication year



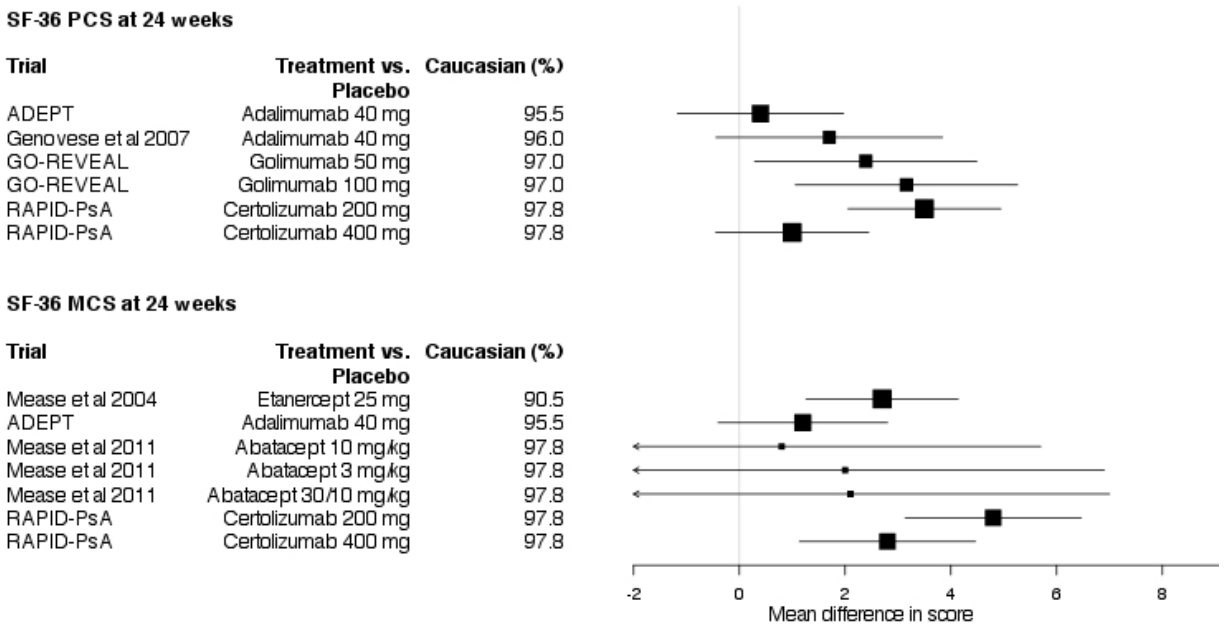
Supplementary Figure 67: Forest plot of mean change from baseline in SF-36 PCS and SF-36 MCS scores at 24 weeks for age (years)



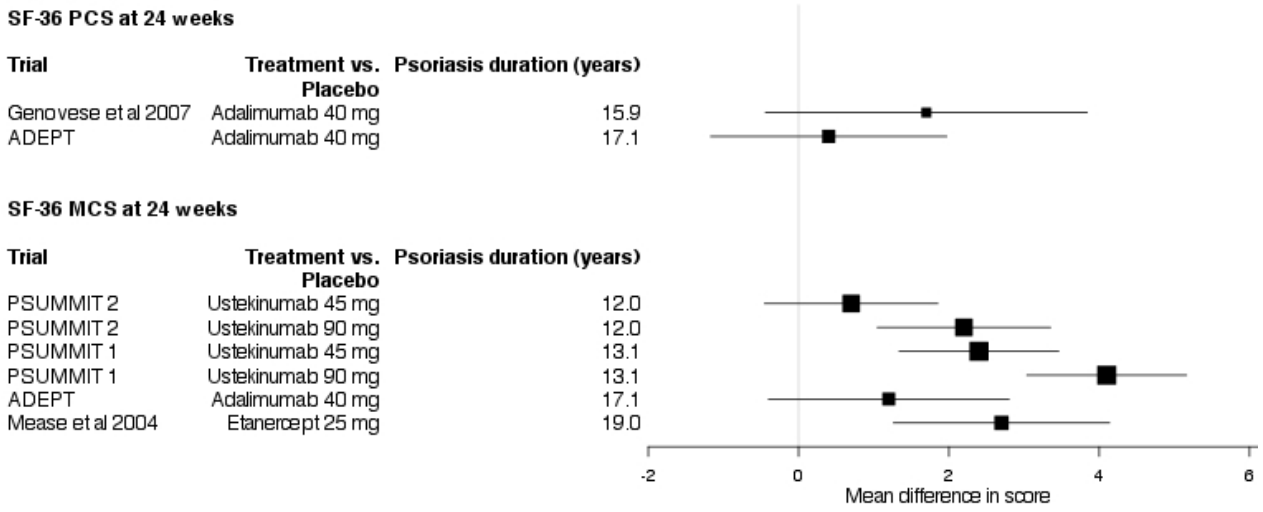
Supplementary Figure 68: Forest plot of mean change from baseline in SF-36 PCS and SF-36 MCS scores at 24 weeks for male (%)



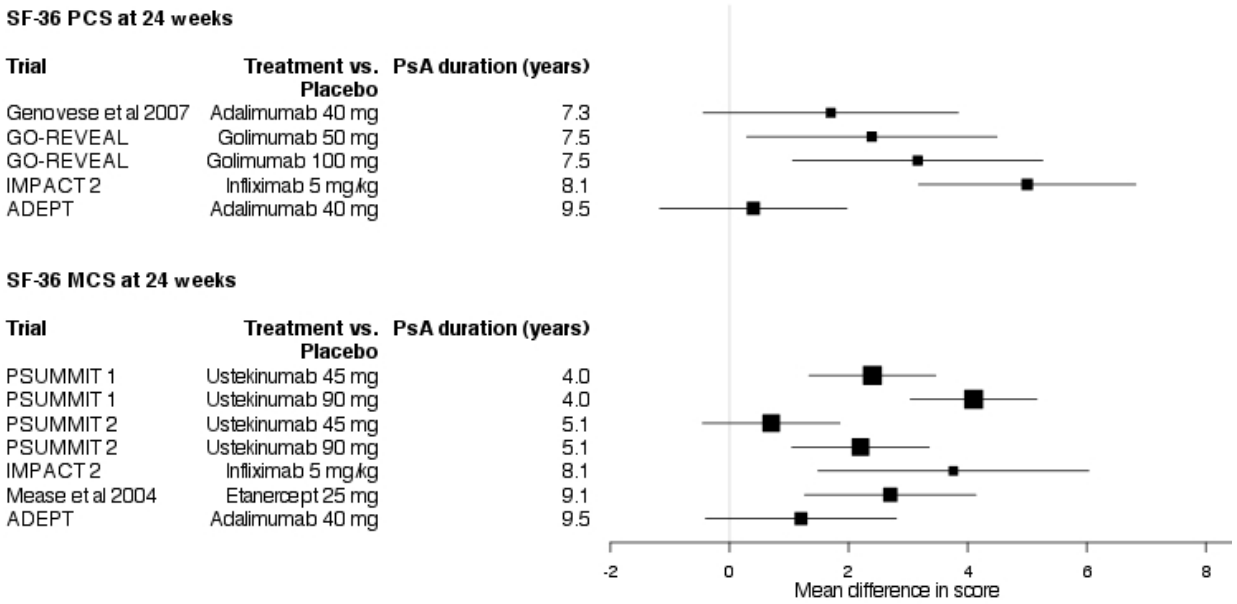
Supplementary Figure 69: Forest plot of mean change from baseline in SF-36 PCS and SF-36 MCS scores at 24 weeks for Caucasian (%)



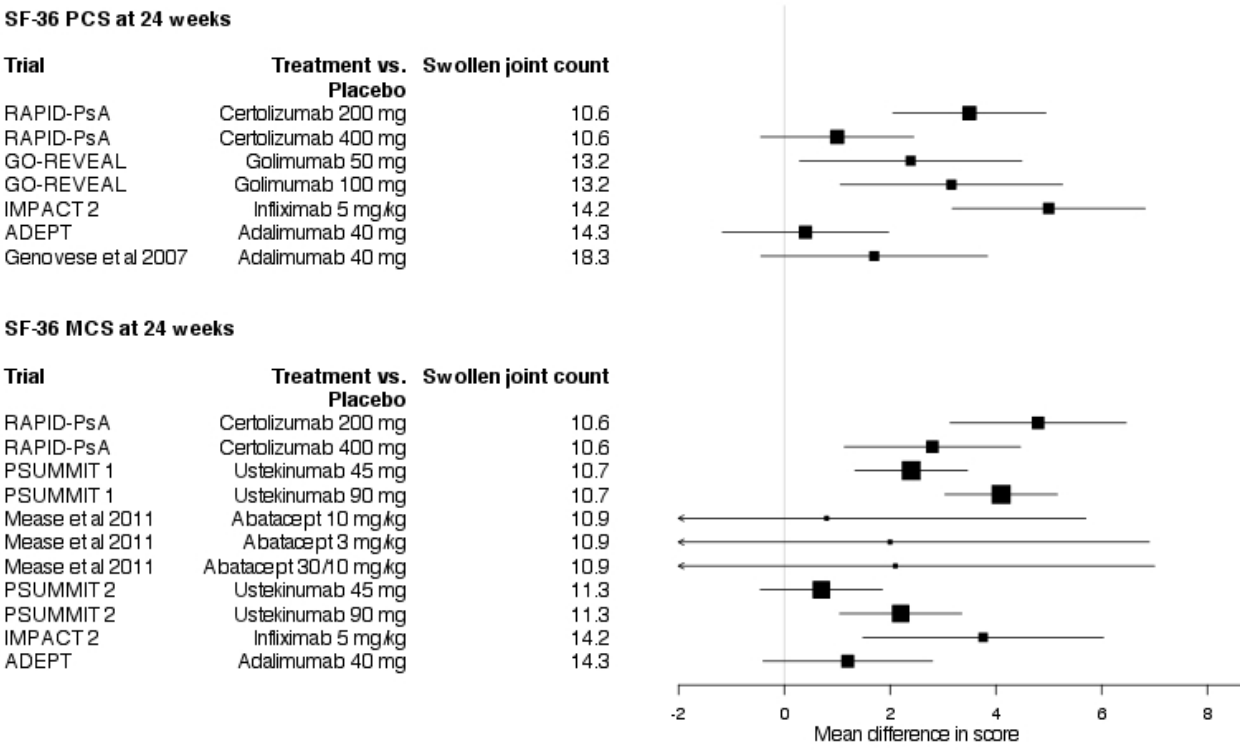
Supplementary Figure 70: Forest plot of mean change from baseline in SF-36 PCS and SF-36 MCS scores at 24 weeks for psoriasis disease duration (years)



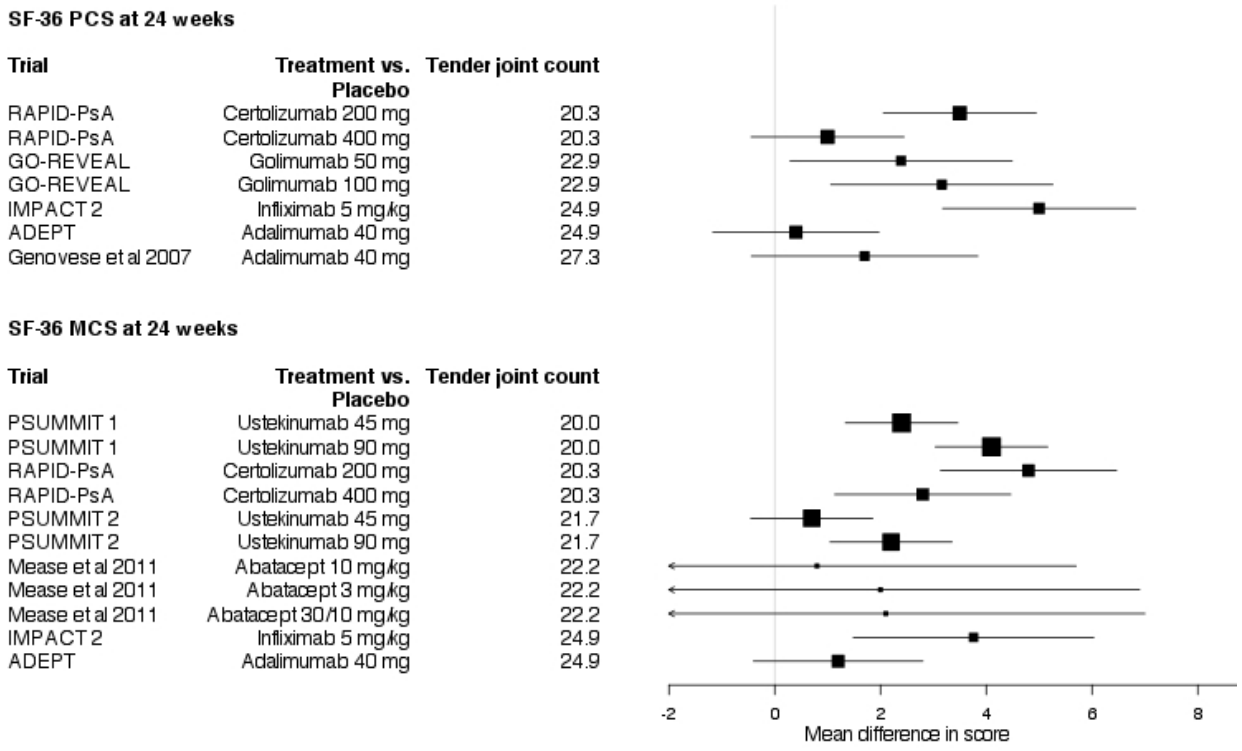
Supplementary Figure 71: Forest plot of mean change from baseline in SF-36 PCS and SF-36 MCS scores at 24 weeks for PsA disease duration (years)



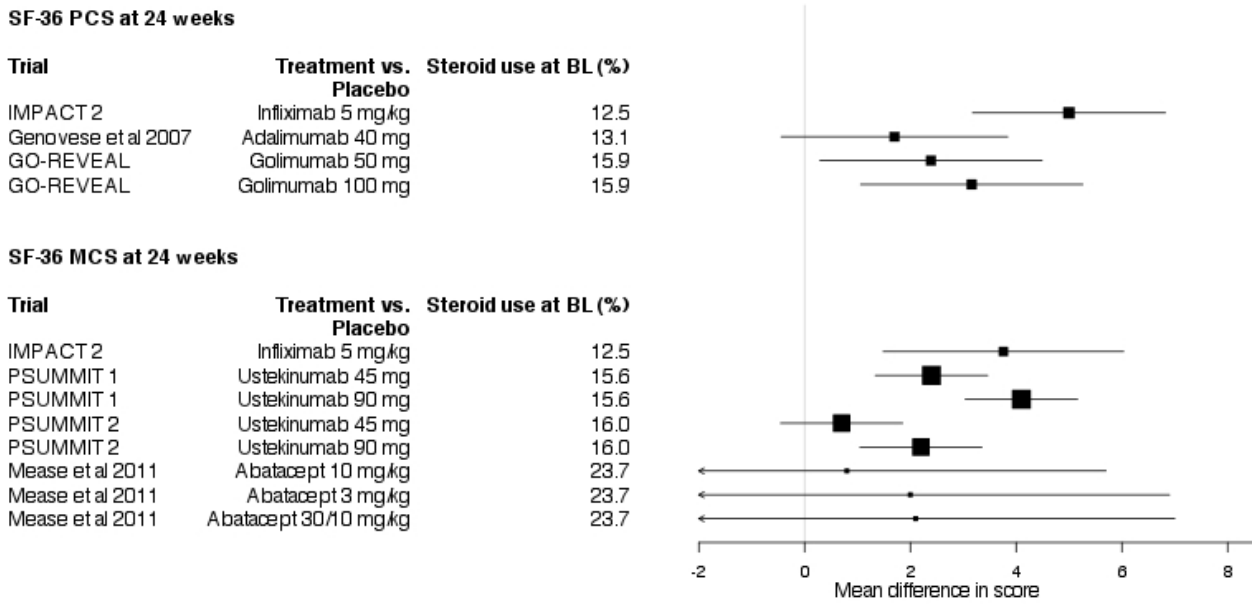
Supplementary Figure 72: Forest plot of mean change from baseline in SF-36 PCS and SF-36 MCS scores at 24 weeks for swollen joint count



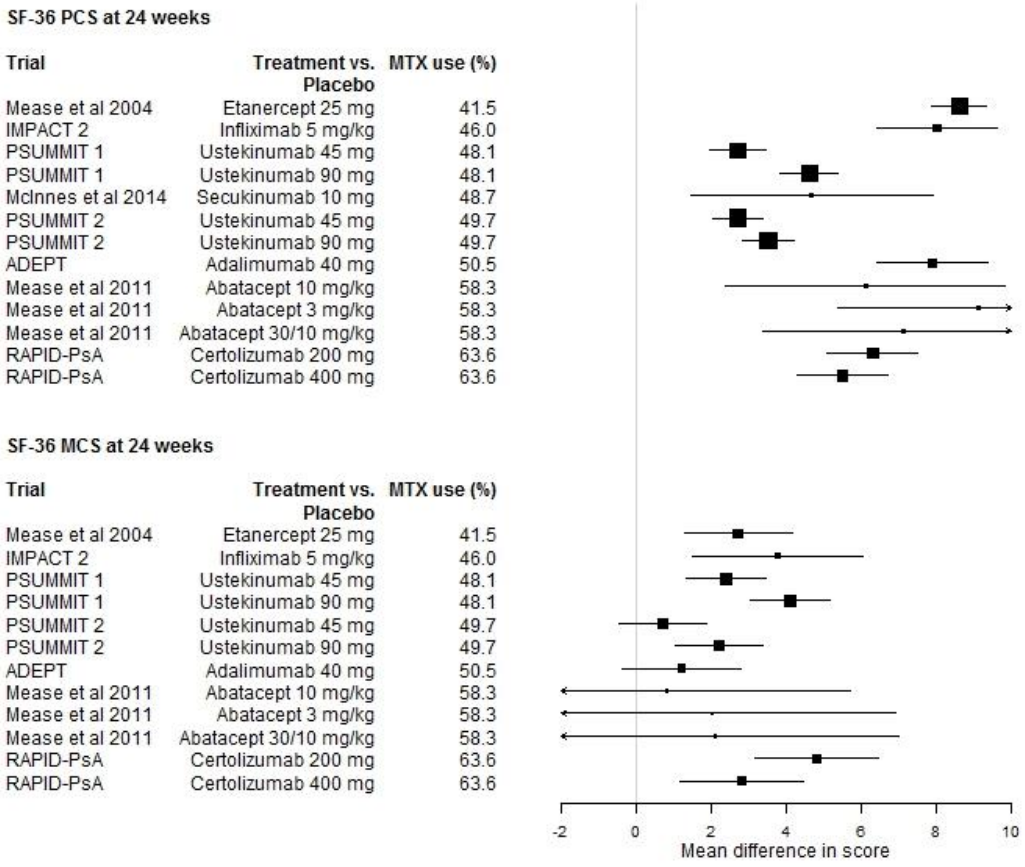
Supplementary Figure 73: Forest plot of mean change from baseline in SF-36 PCS and SF-36 MCS scores at 24 weeks for tender joint count



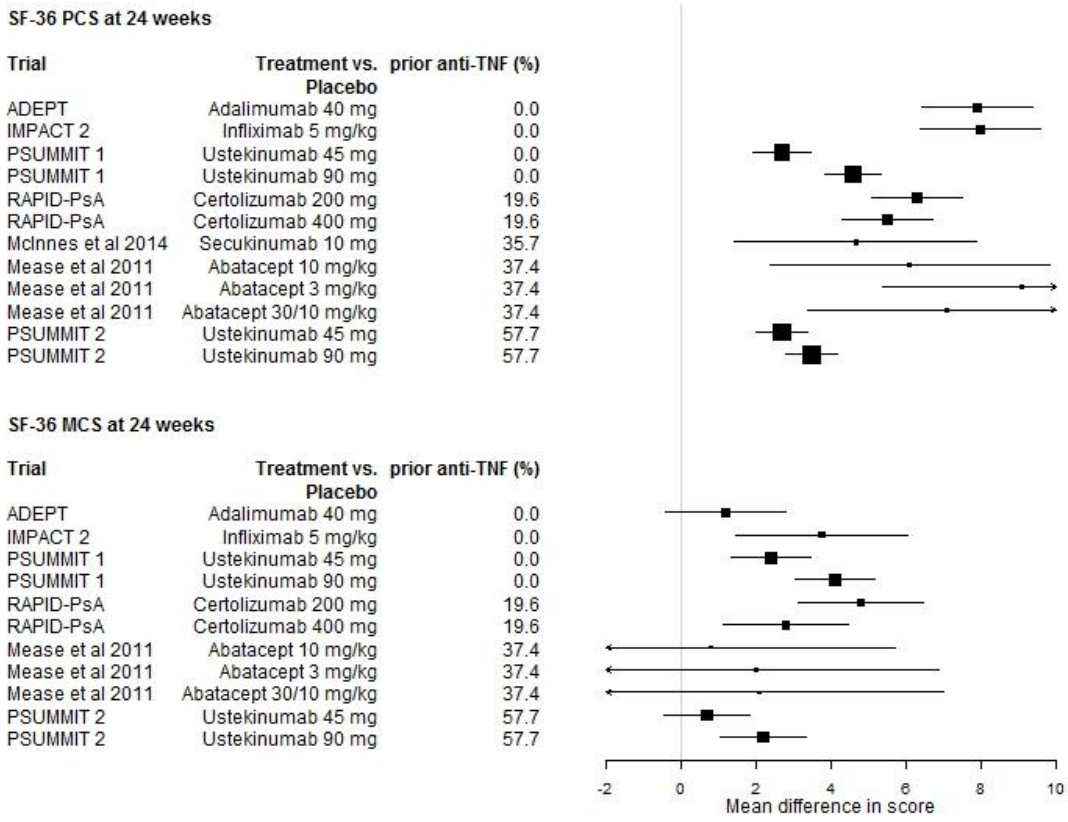
Supplementary Figure 74: Forest plot of mean change from baseline in SF-36 PCS and SF-36 MCS scores at 24 weeks for steroid use at baseline (%)



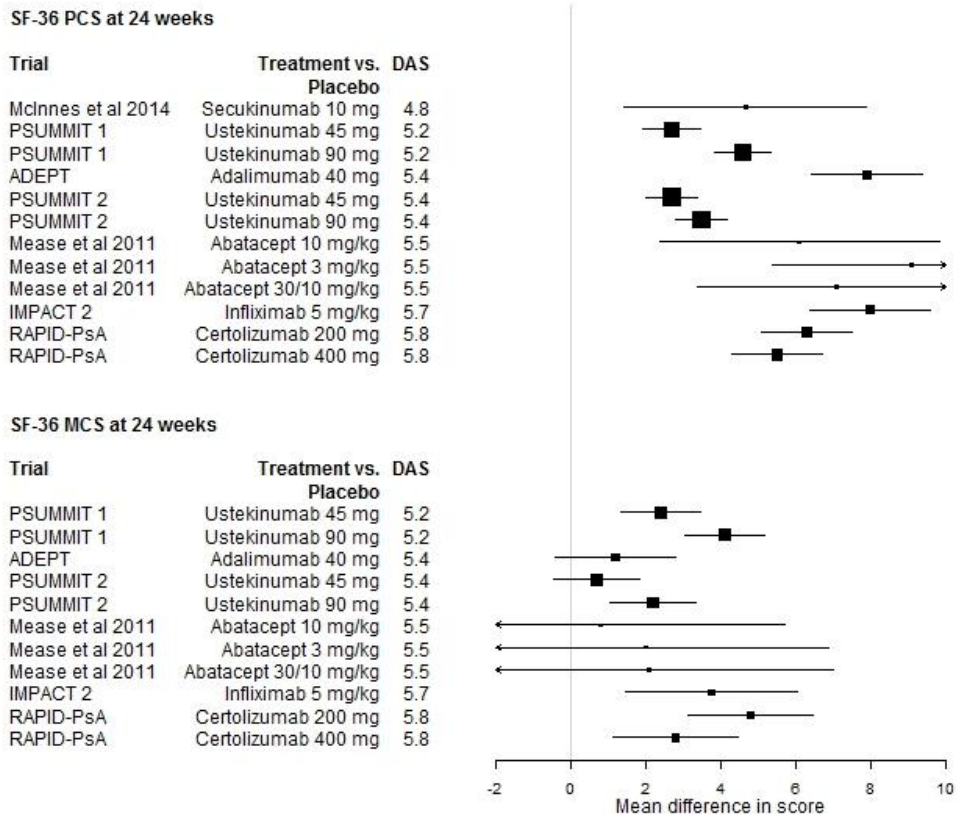
Supplementary Figure 75: Forest plot of mean change from baseline in SF-36 PCS and SF-36 MCS scores at 24 weeks for methotrexate use (%)



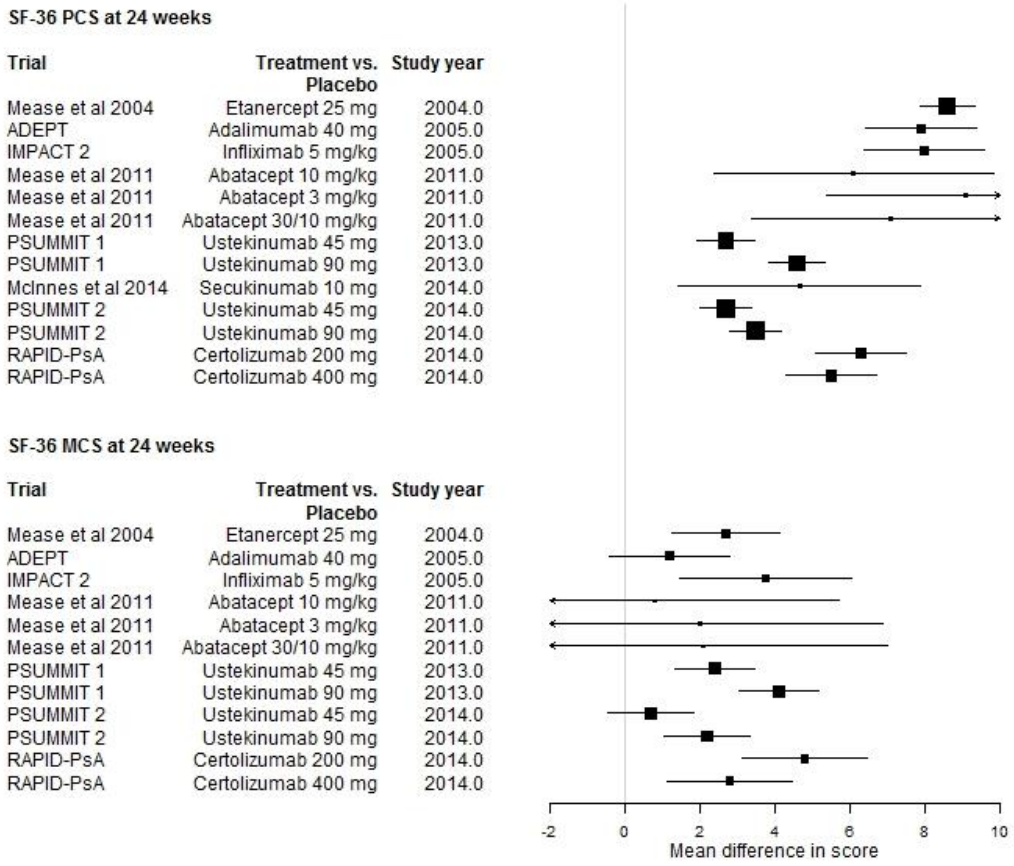
Supplementary Figure 76: Forest plot of mean change from baseline in SF-36 PCS and SF-36 MCS scores at 24 weeks for prior anti-TNF use (%)



Supplementary Figure 77: Forest plot of mean change from baseline in SF-36 PCS and SF-36 MCS scores at 24 weeks for DAS

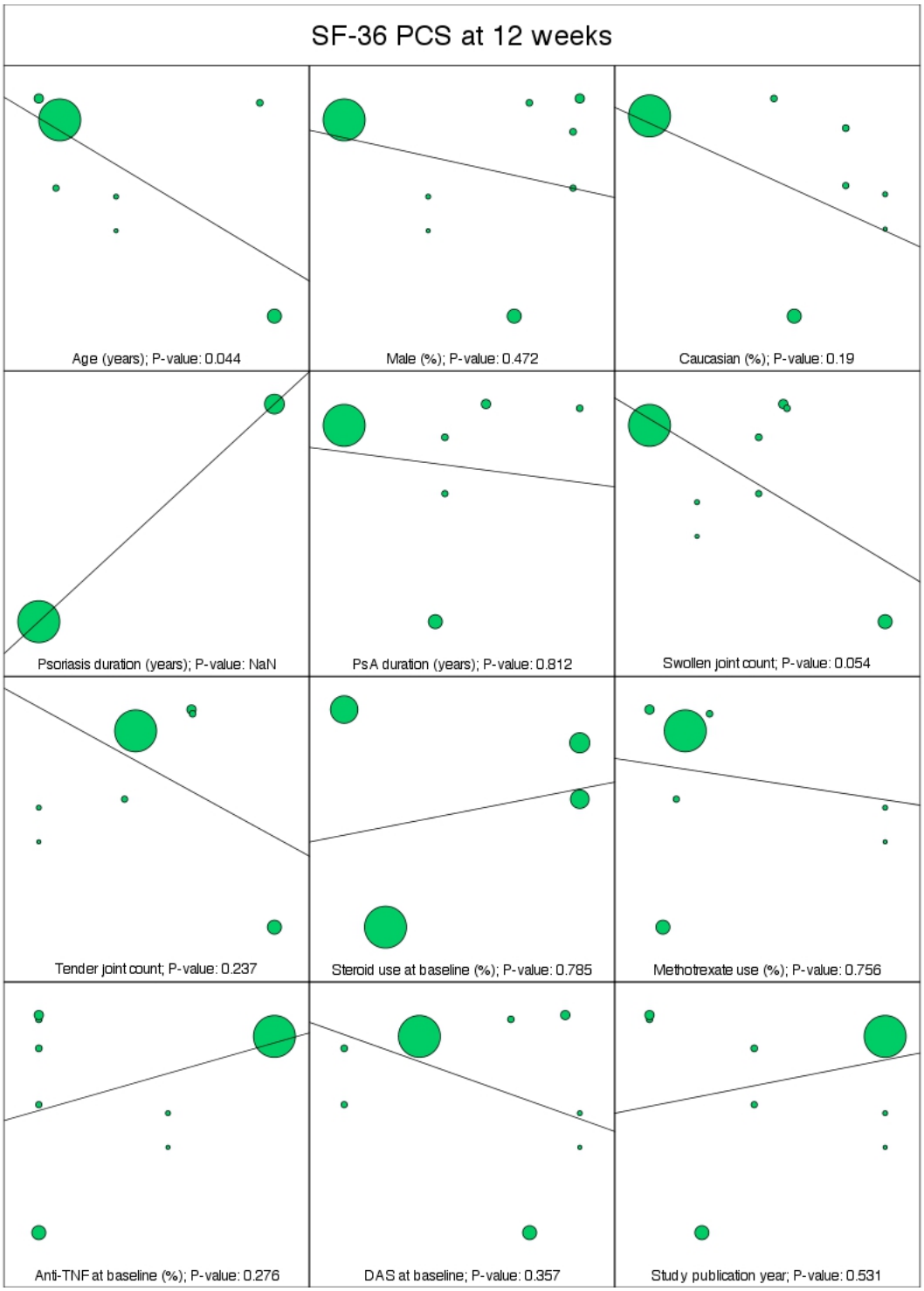


Supplementary Figure 78: Forest plot of mean change from baseline in SF-36 PCS and SF-36 MCS scores at 24 weeks for publication year



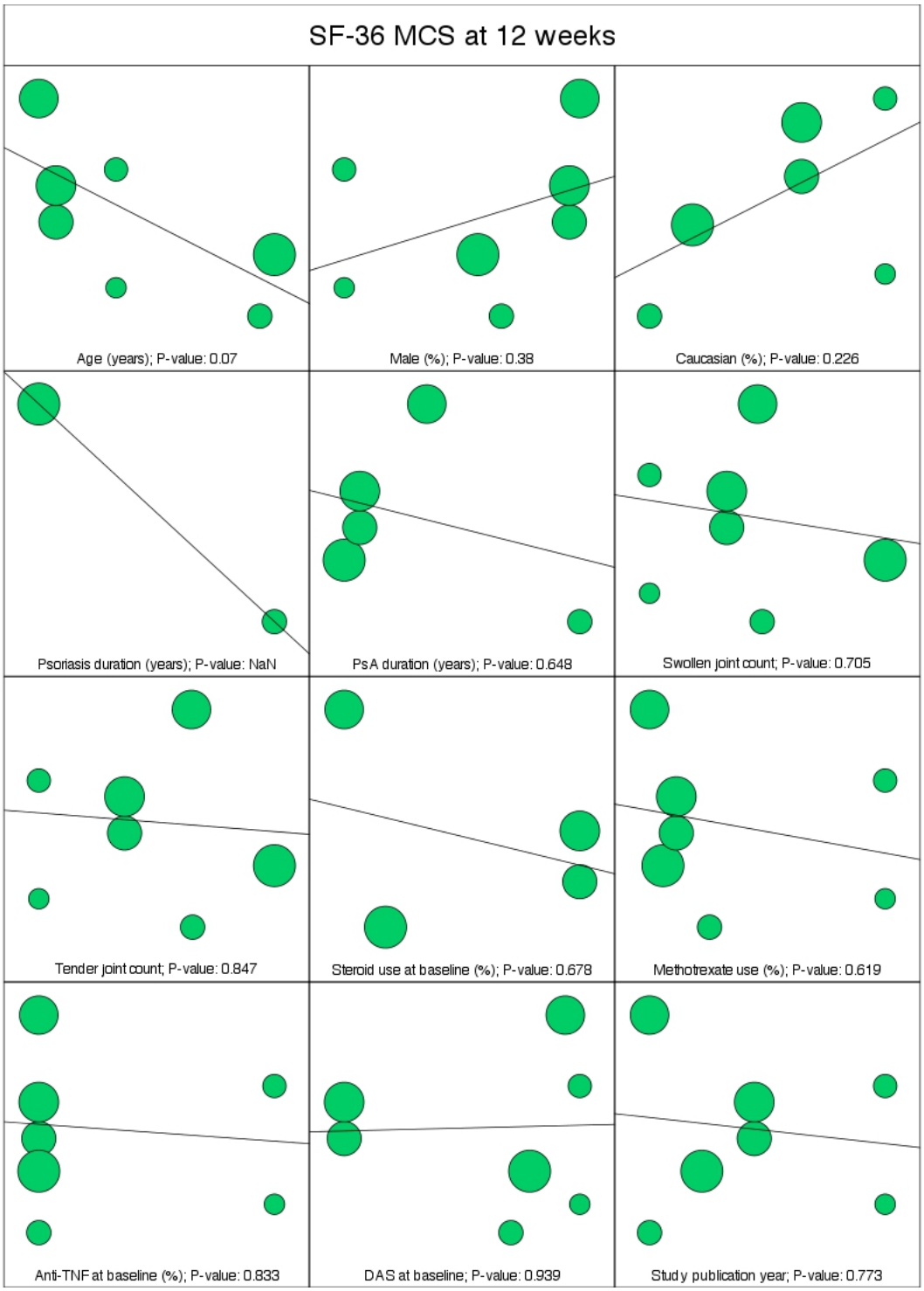
Appendix 10: L'Abbe plots for SF-36 PCS and SF-36 MCS

Supplementary Figure 79: Meta-regression (L'Abbé) plots of mean change from baseline in SF-36 PCS scores (y-axis) against the underlying covariate value (x-axis) at 12 weeks



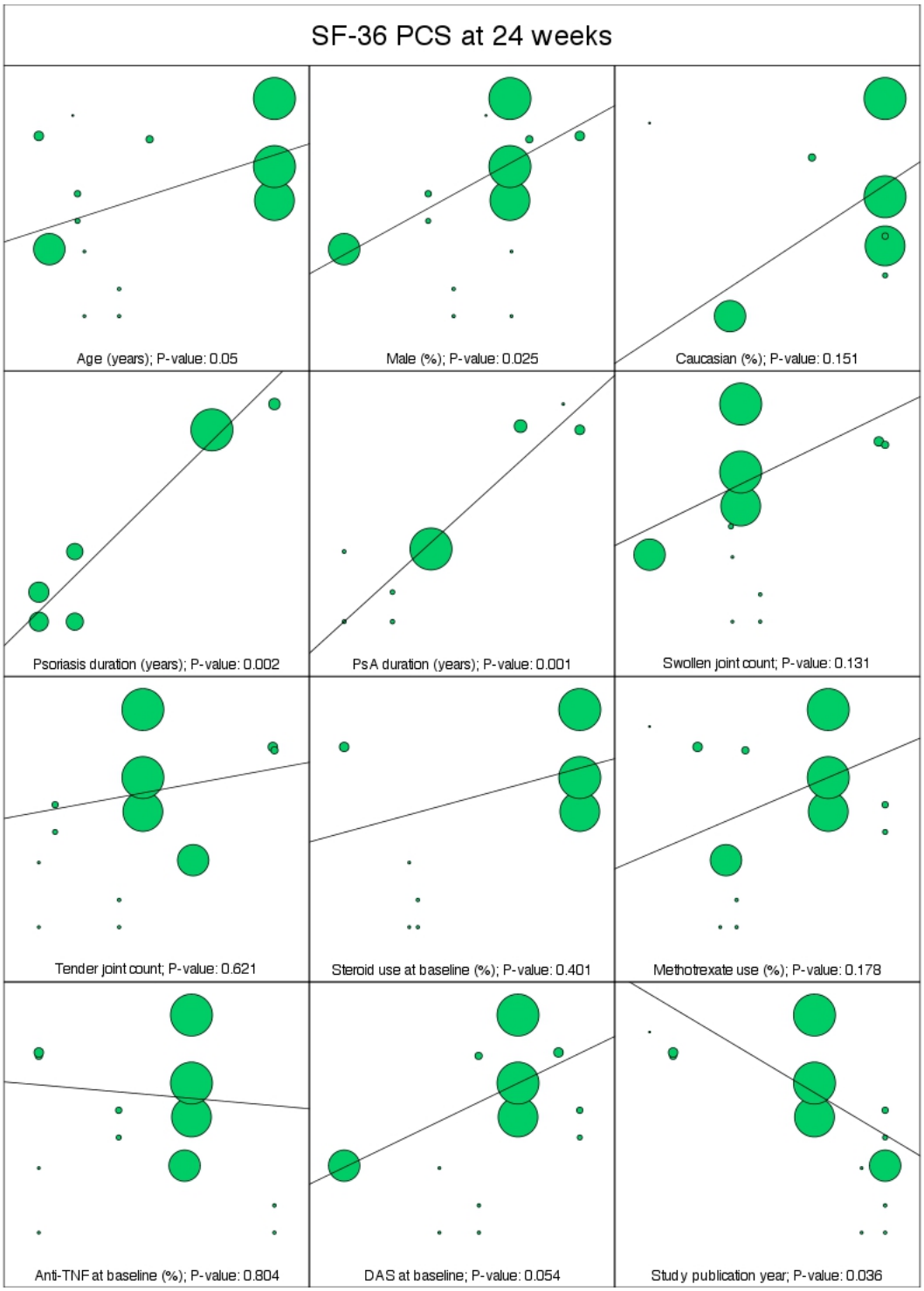
Note: Lines are provided by a weighted linear regression, with weights being inversely proportional to the variance in each estimate.

Supplementary Figure 80: Meta-regression (L'Abbé) plots of mean change from baseline in SF-36 MCS scores (y-axis) against the underlying covariate value (x-axis) at 12 weeks



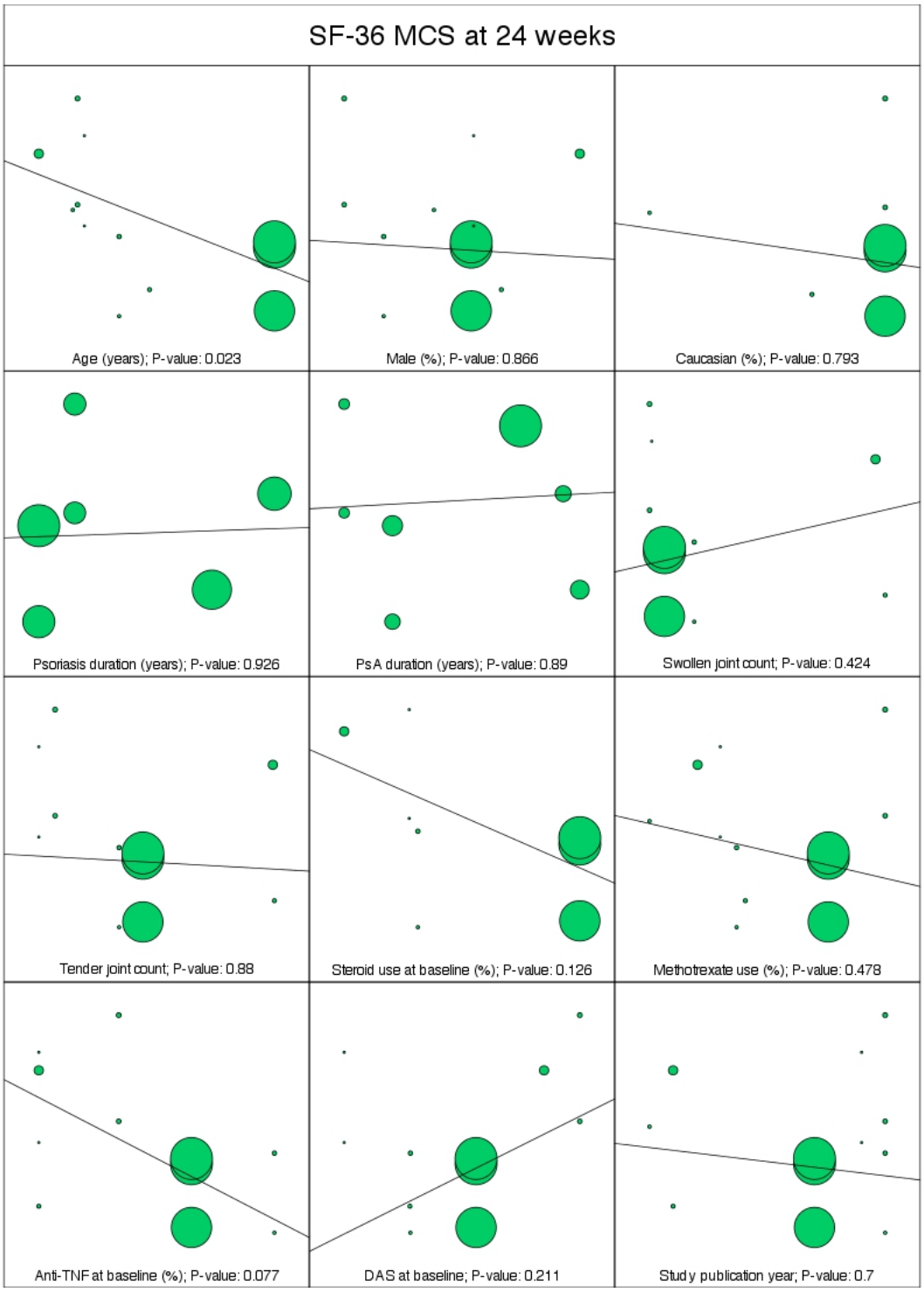
Note: Lines are provided by a weighted linear regression, with weights being inversely proportional to the variance in each estimate.

Supplementary Figure 81: Meta-regression (L'Abbé) plots of mean change from baseline in SF-36 PCS scores (y-axis) against the underlying covariate value (x-axis) at 24 weeks



Note: Lines are provided by a weighted linear regression, with weights being inversely proportional to the variance in each estimate.

Supplementary Figure 82: Meta-regression (L'Abbé) plots of mean change from baseline in SF-36 MCS scores (y-axis) against the underlying covariate value (x-axis) at 24 weeks



Note: Lines are provided by a weighted linear regression, with weights being inversely proportional to the variance in each estimate.