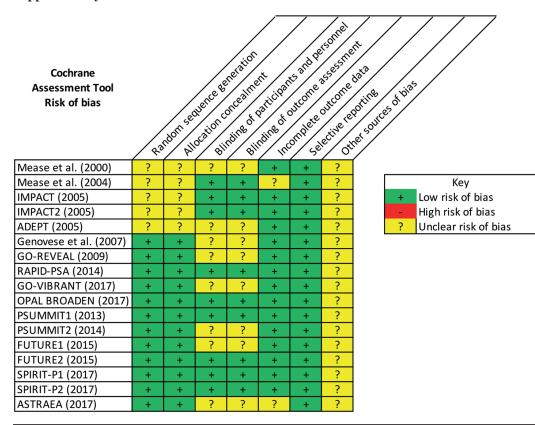
## Supplementary file



**Suppl. Fig. 1.** Risk of bias, presented with the Cochrane Collaboration's Assessment

	Experim	ental	Contr	ols		Risk Ratio		R	lisk Ratio	
Study or Subgroup	Events	Total	<b>Events</b>	Total	Weight	IV, Random, 95% CI		IV, Ra	ndom, 95% CI	
1.2.1 Anti-TNF										
Mease et al. 2000 (Etanercept)	15	30	1	30	2.0%	15.00 [2.11, 106.49]				$\longrightarrow$
Mease et al. 2004 (Etanercept)	38	101	4	104	4.9%	9.78 [3.62, 26.41]				_
Antoni et al. 2005 (IMPACT)	24	52	0	52	1.1%	49.00 [3.06, 785.06]				$\longrightarrow$
Antoni et al. 2005 (IMPACT2)	41	100	4	100	4.9%	10.25 [3.81, 27.55]				_
Mease et al. 2005 (ADEPT)	59	151	10	162	7.0%	6.33 [3.36, 11.92]				
Genovese et al. 2007 (Adalimumab)	13	51	1	49	1.9%	12.49 [1.70, 91.90]				
Kavanaugh et al. 2009 (GO-REVEAL)	45	146	5	113	5.5%	6.97 [2.86, 16.97]				
Mease et al. 2014 (RAPID-PsA)	61	138	17	136	8.0%	3.54 [2.18, 5.73]				
Kavanaugh et al. 2017 (GO-VIBRANT)	129	241	15	239	7.9%	8.53 [5.15, 14.12]				
Mease et al. 2017 (OPAL BROADEN)	35	106	10	105	6.9%	3.47 [1.81, 6.63]				
Subtotal (95% CI)	33	1116	10	1090	50.3%	6.47 [4.57, 9.17]			•	
Total events	460		67						_	
Heterogeneity: $Tau^2 = 0.11$ ; $Chi^2 = 14$ .		(D = 0		100/						
Test for overall effect: $Z = 10.50 \text{ (P < 0.11)}$		(P = 0.	09); 1 =	40%						
lest for overall effect: $Z = 10.50 (P < 0.00)$	(10000.									
1.2.2 Anti IL12-23										
McInnes et al. 2013 (PSUMMIT1)	51	205	18	206	7.9%	2.85 [1.72, 4.70]				
Ritchlin et al. 2014 (PSUMMIT2)	18	103	7	104	5.8%	2.60 [1.13, 5.95]				
Subtotal (95% CI)	10	308	,	310	13.7%	2.78 [1.81, 4.27]				
Total events	69	300	25	310	13.770	2.70 [2.02, 4.27]			_	
Heterogeneity: $Tau^2 = 0.00$ ; $Chi^2 = 0.0$		D 00		0/						
		P = 0.8	5), 1 = 0	70						
Test for overall effect: $Z = 4.67$ (P < 0.	00001)									
1.2.3 Anti IL-17										
Mease et al. 2015 (FUTURE1)	70	202	15	202	7.8%	4.67 [2.77, 7.87]				
McInnes et al. 2015 (FUTURE2)	35	100	7	98	6.2%	4.90 [2.29, 10.50]				
Mease et al. 2017 (FOTOREZ)	43	107	16	106	7.9%	2.66 [1.60, 4.42]				
	43	122		118						
Nash et al. 2017 (SPIRIT-P2) Subtotal (95% CI)	43	531	6	524	5.9% <b>27.8%</b>	6.93 [3.07, 15.67] <b>4.22 [2.83, 6.28</b> ]				
	101	331		324	27.070	4.22 [2.03, 0.20]				
Total events	191		. 44	001						
Heterogeneity: $Tau^2 = 0.06$ ; $Chi^2 = 4.8$		P = 0.1	9); $1^2 = 3$	8%						
Test for overall effect: $Z = 7.09$ (P < 0.	00001)									
1.2.4 Abatacept										
Mease et al. 2016 (ASTRAEA)	41	213	26	211	8.2%	1.56 [0.99, 2.46]			L_	
Subtotal (95% CI)	41	213	26	211	8.2% 8.2%	1.56 [0.99, 2.46]				
	41	213	26	211	0.2/0	1.30 [0.33, 2.40]				
Total events	41		26							
Heterogeneity: Not applicable										
Test for overall effect: $Z = 1.93$ (P = 0.	05)									
Total (95% CI)		2168		2135	100.0%	4.72 [3.46, 6.43]				
	761	2100	163	2133	100.0%	7.72 [3.70, 0.43]			_	
Total events	761	C (D )	162	2 600	· ·		T			
Heterogeneity: $Tau^2 = 0.25$ ; $Chi^2 = 49$ .		6 (P < (	).0001);	r = 685	%		0.01	0.1	1 10	100
Test for overall effect: $Z = 9.82 (P < 0.00001)$										
Test for subgroup differences: $Chi^2 = 2$	5.91, df =	3 (P <	0.00001	), $I^2 = 8$	38.4%					

**Suppl. Fig. 2.** Risk ratio (95%CI) for bDMARDs in terms of fulfilling the ACR50 response criteria compared to placebo, pooled per class (higher is better).

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	Experim	ental	Contr	ols		Risk Ratio			Risk Ratio	)	
Study or Subgroup	Events	Total	<b>Events</b>	Total	Weight	IV, Random, 95% CI		IV, F	landom, 9	5% CI	
1.3.1 Anti-TNF											
Mease et al. 2000 (Etanercept)	4	30	0	30	2.1%	9.00 [0.51, 160.17]			_		$\longrightarrow$
Mease et al. 2004 (Etanercept)	11	101	0	104	2.2%	23.68 [1.41, 396.53]			-		•
Antoni et al. 2005 (IMPACT)	15	52	0	52	2.2%	31.00 [1.90, 504.86]			-		<del></del>
Antoni et al. 2005 (IMPACT2)	27	100	2	100	5.9%	13.50 [3.30, 55.26]					
Mease et al. 2005 (ADEPT)	35	151	2	162	5.9%	18.77 [4.59, 76.72]					
Genovese et al. 2007 (Adalimumab)	7	51	0	49	2.2%	14.42 [0.85, 245.94]			+		$\longrightarrow$
Kavanaugh et al. 2009 (GO-REVEAL)	32	146	1	113	3.8%	24.77 [3.44, 178.51]					
Mease et al. 2014 (RAPID-PsA)	39	138	6	136	9.2%	6.41 [2.80, 14.64]					
Kavanaugh et al. 2017 (GO-VIBRANT)	79	241	8	239	10.0%	9.79 [4.84, 19.82]				_	
Mease et al. 2017 (OPAL BROADEN) Subtotal (95% CI)	20	106 <b>1116</b>	5	105 <b>1090</b>	8.4% <b>51.9%</b>	3.96 [1.54, 10.16] <b>8.89 [5.98, 13.21]</b>			-	•	
Total events	269		24								
Heterogeneity: $Tau^2 = 0.00$ ; $Chi^2 = 7.3$	0, df = 9	(P = 0.6)	1); $I^2 = 0$	)%							
Test for overall effect: $Z = 10.81$ (P < 0	0.00001)										
1.3.2 Anti IL12-23											
McInnes et al. 2013 (PSUMMIT1)	25	205	5	206	8.4%	5.02 [1.96, 12.87]			-		
Ritchlin et al. 2014 (PSUMMIT2)	7	103	3	104	6.3%	2.36 [0.63, 8.86]			-		
Subtotal (95% CI)		308		310	14.7%	3.90 [1.81, 8.39]			-		
Total events	32		8								
Heterogeneity: $Tau^2 = 0.00$ ; $Chi^2 = 0.8$	33, df = 1	(P = 0.3)	6); $I^2 = 0$	)%							
Test for overall effect: $Z = 3.48$ (P = 0.	0005)										
1.3.3 Anti IL-17											
Mease et al. 2015 (FUTURE1)	38	202	4	202	8.0%	9.50 [3.45, 26.13]					_
McInnes et al. 2015 (FUTURE2)	21	100	1	98	3.8%	20.58 [2.82, 150.05]					•
Mease et al. 2017 (SPIRIT-P1)	25	107	6	106	9.0%	4.13 [1.77, 9.65]			-		
Nash et al. 2017 (SPIRIT-P2)	27	122	0	118	2.3%	53.21 [3.28, 862.46]					<b></b>
Subtotal (95% CI)		531		524	23.0%	8.84 [3.65, 21.39]					-
Total events	111		11								
Heterogeneity: $Tau^2 = 0.31$ ; $Chi^2 = 4.9$ Test for overall effect: $Z = 4.83$ (P < 0.		(P = 0.1)	7); $I^2 = 4$	10%							
1.3.4 Abatacept											
Mease et al. 2016 (ASTRAEA) Subtotal (95% CI)	22	213 <b>213</b>	14	211 <b>211</b>	10.4% <b>10.4%</b>	1.56 [0.82, 2.96] <b>1.56 [0.82, 2.96]</b>			•	-	
Total events	22		14								
Heterogeneity: Not applicable Test for overall effect: $Z = 1.35$ ( $P = 0$ .	18)										
Total (95% CI)	•	2168		2135	100.0%	7.10 [4.49, 11.25]				•	
Total events	434	_300	57							•	
Heterogeneity: $Tau^2 = 0.42$ ; $Chi^2 = 35$		6 (P = (		= 55%							
Test for overall effect: $Z = 8.36$ (P < 0.		.5 (1 - (	).JUT), I	- 55/0			0.01	0.1	i	10	100

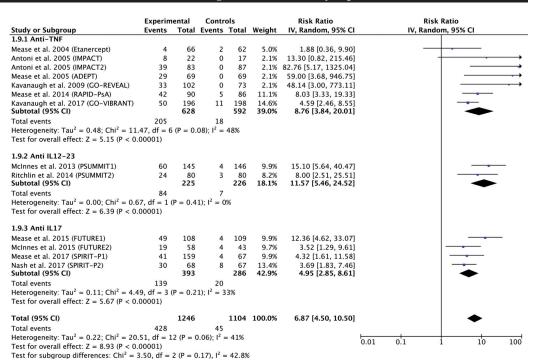
**Suppl. Fig. 3.** Risk ratio (95%CI) for bDMARDs in terms of fulfilling the ACR70 response criteria compared to placebo, pooled per class (higher is better).

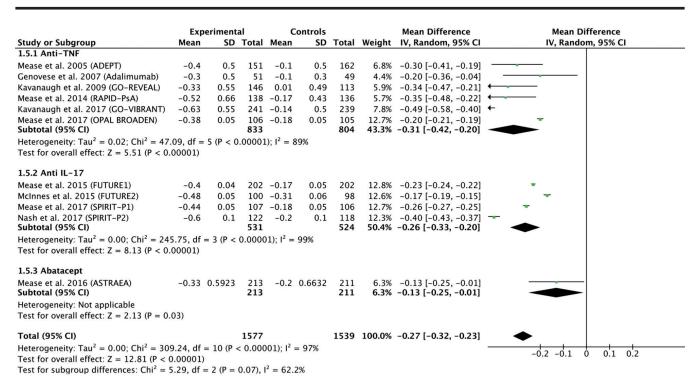
	Experim	ental	Contr	ols		Risk Ratio		Die	k Ratio
Study or Subgroup	Events				Weight	IV, Random, 95% CI			dom, 95% CI
1.12.1 Anti-TNF	Lvents	Total	LVCIICS	Total	weight	14, Random, 55% Cr		TV, Run	3570 C.
Mease et al. 2000 (Etanercept)	22	30	4	30	3.3%	5.50 [2.15, 14.04]			
Mease et al. 2004 (Etanercept)	60	101	16	104	6.2%				
Antoni et al. 2005 (IMPACT)	34	52	5	52	3.7%				
Antoni et al. 2005 (IMPACT2)	54	100	16	100	6.2%				
Mease et al. 2005 (ADEPT)	86	151	24	162	6.9%				
Genovese et al. 2007 (Adalimumab)	20	51	8	49	4.5%				
Kavanaugh et al. 2009 (GO-REVEAL)	76	146	14	113	5.9%				
Mease et al. 2014 (RAPID-PsA)	134	219	30	110	7.4%				
Kavanaugh et al. 2017 (GO-VIBRANT)	185	241	58	239	8.1%				_
Mease et al. 2017 (OPAL BROADEN)	55	106	35	105	7.4%				
Subtotal (95% CI)	33	1197	33	1064	59.6%				•
Total events	726		210						
Heterogeneity: $Tau^2 = 0.10$ ; $Chi^2 = 28$		(P = 0		= 68%					
Test for overall effect: $Z = 8.90 (P < 0.00)$		(1 – 0.	0000), 1	- 00/0					
1.12.2 Anti IL12-23									
McInnes et al. 2013 (PSUMMIT1)	87	205	47	206	7.6%	1.86 [1.38, 2.50]			<del></del>
Ritchlin et al. 2014 (PSUMMIT2)	23	43	12	42	5.6%	1.87 [1.08, 3.26]			_ <del></del>
Subtotal (95% CI)		248		248	13.3%	1.86 [1.43, 2.42]			•
Total events	110		59						
Heterogeneity: $Tau^2 = 0.00$ ; $Chi^2 = 0.00$ Test for overall effect: $Z = 4.65$ (P < 0.00)		P = 0.9	8); $I^2 = 0$	%					
1.12.3 Anti IL-17									
Mease et al. 2015 (FUTURE1)	78	143	25	143	6.9%	3.12 [2.12, 4.59]			
McInnes et al. 2015 (FUTURE2)	40	63	10	63	5.3%				
Mease et al. 2017 (SPIRIT-P1)	62	107	32	106	7.4%				-
Subtotal (95% CI)		313		312	19.6%	2.75 [1.80, 4.21]			•
Total events	180		67						
Heterogeneity: $Tau^2 = 0.09$ ; $Chi^2 = 6.0$	04, df = 2	P = 0.0	5); $I^2 = 6$	7%					
Test for overall effect: $Z = 4.66$ (P < 0.									
1.12.4 Abatacept									
Mease et al. 2016 (ASTRAEA)	46	84	36	81	7.5%	1.23 [0.90, 1.68]			+
Subtotal (95% CI)		84		81	7.5%	1.23 [0.90, 1.68]			<b>*</b>
Total events	46		36						
Heterogeneity: Not applicable									
Test for overall effect: $Z = 1.31$ (P = 0.	19)								
Total (95% CI)		1842		1705	100.0%	2.69 [2.17, 3.33]			•
Total events	1062		372						
Heterogeneity: $Tau^2 = 0.14$ ; $Chi^2 = 64$		5 (P < 0		$1^2 = 7$	7%		<del> </del>	-1-	<u> </u>
Test for overall effect: $Z = 8.99$ (P < 0.							0.05	0.2	i 5 20
Test for subgroup differences: Chi <sup>2</sup> =		3 (P <	0.0001).	$I^2 = 8$	7.2%				

**Suppl. Fig. 4.** Risk ratio (95%CI) for bDMARDs in terms of fulfilling the ACR20 response criteria compared to placebo, pooled per class, in patients naïve to bDMARDs (higher is better).

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**Suppl. Fig. 5.** Risk ratio (95%CI) for bDMARDs in terms of fulfilling the PASI90 response criteria compared to placebo, pooled per class (higher is better).





Suppl. Fig. 6. Mean HAQ-DI difference (95%CI) for bDMARDs compared to placebo, pooled per class (lower is better).