

SUPPLEMENTARY MATERIAL

Impact of Sociodemographic Index on Efficacy/Safety of Tofacitinib in Patients with Rheumatoid Arthritis: Post Hoc Analysis of Phase 2/3/3b/4 Studies

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Table S1 GBD 2010 values for countries that participated in RA clinical trials,^a stratified by SDI tertile

Low SDI		Medium SDI		High SDI	
Location	SDI value	Location	SDI value	Location	SDI value
India	0.473	Ukraine	0.713	France	0.806
Philippines	0.567	Romania	0.726	Australia	0.809
Colombia	0.574	Bulgaria	0.733	New Zealand	0.809
Venezuela	0.586	Spain	0.743	Czech Republic	0.813
Brazil	0.590	Croatia	0.763	UK	0.816
Peru	0.601	Poland	0.763	Belgium	0.820
Mexico	0.608	Puerto Rico	0.769	Austria	0.826
China	0.621	Hungary	0.772	Finland	0.828
Costa Rica	0.637	Russia	0.775	Taiwan	0.830
Thailand	0.638	Greece	0.779	Ireland	0.831
South Africa	0.642	Italy	0.780	US	0.832
Argentina	0.665	Israel	0.781	South Korea	0.842
Turkey	0.680	Slovakia	0.789	Japan	0.848
Bosnia and Herzegovina	0.682	Latvia	0.797	Sweden	0.849
Malaysia	0.693	Lithuania	0.797	Canada	0.851
Dominican Republic	0.700	Estonia	0.798	Denmark	0.870
Chile	0.706			Germany	0.878

^aIncludes patients enrolled in tofacitinib phase 2/3/3b/4 clinical trials receiving tofacitinib 5 mg BID, tofacitinib

10 mg BID, placebo, adalimumab, or methotrexate

BID twice daily, *GBD* Global Burden of Diseases, Injuries, and Risk Factors study, *RA* rheumatoid arthritis,

SDI sociodemographic index

Table S2 ORs vs placebo (95% CI) for ACR components with $\geq 20\%$ improvement at month 3, stratified by active treatment group and SDI tertile^a

Treatment	Combined tofacitinib doses ^b						Adalimumab 40 mg Q2W					
	Low SDI (N = 1444)		Medium SDI (N = 1068)		High SDI (N = 2121)		Low SDI (N = 191)		Medium SDI (N = 214)		High SDI (N = 238)	
	NI	OR vs placebo (95% CI)	NI	OR vs placebo (95% CI)	NI	OR vs placebo (95% CI)	NI	OR vs placebo (95% CI)	NI	OR vs placebo (95% CI)	NI	OR vs placebo (95% CI)
Pain (VAS)	1323	4.12 (2.99, 5.68)	987	3.01 (2.09, 4.35)	1832	4.41 (3.54, 5.49)	177	4.95 (3.08, 7.94)	205	3.63 (2.29, 5.78)	222	3.31 (2.34, 4.67)
Patient global assessment	1322	4.23 (3.05, 5.86)	987	2.63 (1.82, 3.79)	1833	4.23 (3.39, 5.28)	176	5.08 (3.14, 8.22)	206	3.50 (2.20, 5.57)	221	3.73 (2.62, 5.32)
Physician global assessment	1321	3.81 (2.66, 5.44)	986	3.44 (2.37, 5.00)	1823	4.36 (3.47, 5.49)	177	3.80 (2.16, 6.67)	206	3.08 (1.90, 4.99)	220	3.61 (2.44, 5.34)
Swollen joint count	1330	3.42 (2.34, 5.01)	991	3.18 (2.17, 4.65)	1845	5.38 (4.28, 6.74)	180	4.14 (2.15, 7.94)	206	3.84 (2.25, 6.58)	222	3.40 (2.34, 4.94)
Tender joint count	1330	3.85 (2.74, 5.42)	991	3.25 (2.25, 4.69)	1845	4.06 (3.25, 5.08)	180	3.74 (2.17, 6.46)	206	2.99 (1.84, 4.88)	222	2.81 (1.95, 4.04)
HAQ-DI	1297	3.40 (2.48, 4.66)	981	2.45 (1.72, 3.50)	1782	3.99 (3.18, 5.00)	175	2.83 (1.82, 4.39)	200	2.01 (1.30, 3.11)	219	2.93 (2.09, 4.11)
CRP	1318	7.93 (5.58, 11.28)	974	7.18 (4.87, 10.59)	1839	7.32 (5.77, 9.29)	179	4.97 (3.11, 7.94)	204	8.09 (4.89, 13.39)	219	6.29 (4.31, 9.19)

^aAt a country level, patients from tofacitinib phase 2/3/3b/4 clinical trials were stratified into low, medium, or high SDI tertiles, defined as scores of ≤ 0.708 , > 0.708 to

≤ 0.803 , or > 0.803 , respectively, using the GBD 2010 criteria

^bData are pooled for patients who received tofacitinib 5 or 10 mg BID

ACR American College of Rheumatology, BID twice daily, CI confidence interval, CRP C-reactive protein, GBD Global Burden of Diseases, Injuries, and Risk Factors

study, *HAQ-DI* Health Assessment Questionnaire Disability Index, *N* number of evaluable patients, *NI* number of evaluable patients in a given category, *OR* odds ratio, *Q2W* every 2 weeks, *SDI* sociodemographic index, *VAS* Visual Analog Scale

Table S3 Efficacy outcomes and PROs at month 3 in patients receiving tofacitinib 5 or 10 mg BID, stratified by SDI tertile^a

Treatment	Tofacitinib 5 mg BID						Tofacitinib 10 mg BID					
	Low SDI		Medium SDI		High SDI		Low SDI		Medium SDI		High SDI	
ACR response	<i>n/N</i> (adj. %) ^b	OR (95% CI)	<i>n/N</i> (adj. %) ^b	OR (95% CI)	<i>n/N</i> (adj. %) ^b	OR (95% CI)	<i>n/N</i> (adj. %) ^b	OR (95% CI)	<i>n/N</i> (adj. %) ^b	OR (95% CI)	<i>n/N</i> (adj. %) ^b	OR (95% CI)
ACR20	581/798 (71.4)	4.46 (3.15, 6.32)	372/613 (58.3)	3.27 (2.17, 4.95)	611/987 (60.9)	4.59 (3.55, 5.93)	410/530 (77.4)	6.13 (4.30, 8.74)	250/377 (66.4)	4.62 (3.06, 6.98)	596/859 (69.4)	6.65 (5.14, 8.61)
ACR50	337/799 (40.0)	3.55 (2.33, 5.42)	163/612 (25.7)	5.31 (2.60, 10.87)	362/987 (36.2)	4.81 (3.44, 6.73)	236/531 (44.4)	4.25 (2.79, 6.48)	126/377 (33.4)	7.69 (3.79, 15.59)	370/860 (42.7)	6.31 (4.53, 8.79)
ACR70	156/798 (17.4)	4.28 (2.11, 8.68)	58/614 (8.9)	4.67 (1.40, 15.53)	165/988 (16.0)	5.90 (3.36, 10.39)	115/531 (21.2)	5.45 (2.70, 11.01)	59/376 (15.6)	8.86 (2.73, 28.74)	197/860 (22.4)	8.95 (5.13, 15.61)
LDA/remission	<i>n/N</i> (adj. %) ^b	OR (95% CI)	<i>n/N</i> (adj. %) ^b	OR (95% CI)	<i>n/N</i> (adj. %) ^b	OR (95% CI)	<i>n/N</i> (adj. %) ^b	OR (95% CI)	<i>n/N</i> (adj. %) ^b	OR (95% CI)	<i>n/N</i> (adj. %) ^b	OR (95% CI)
DAS28-4(CRP), LDA	321/795 (40.2)	4.90 (3.15, 7.62)	159/603 (24.9)	4.73 (2.51, 8.90)	409/983 (41.8)	6.62 (4.79, 9.17)	262/527 (49.0)	6.99 (4.44, 11.01)	142/373 (36.1)	8.03 (4.22, 15.29)	424/857 (49.7)	9.11 (6.56, 12.65)
DAS28-4(CRP), remission	198/795 (23.9)	4.03 (2.34, 6.95)	91/603 (13.6)	5.75 (2.27, 14.56)	240/983 (23.4)	4.99 (3.35, 7.42)	159/527 (28.2)	5.04 (2.90, 8.77)	85/373 (20.2)	9.22 (3.62, 23.5)	280/857 (31.5)	7.51 (5.05, 11.17)
DAS28-4(ESR), LDA	134/740 (16.5)	3.34 (1.74, 6.40)	76/563 (11.3)	7.63 (2.33, 24.98)	200/907 (20.3)	5.52 (3.51, 8.69)	115/482 (20.8)	4.42 (2.29, 8.53)	66/329 (17.7)	12.84 (3.89, 42.42)	233/780 (28.3)	8.54 (5.42, 13.43)
DAS28-4(ESR), remission	46/740 (5.0)	1.42 (0.62, 3.24)	37/563 (5.0)	5.03 (1.18, 21.45)	109/907 (10.2)	7.07 (3.51, 14.24)	61/482 (9.6)	2.88 (1.27, 6.52)	35/329 (8.4)	8.85 (2.06, 38.03)	122/780 (13.5)	9.76 (4.85, 19.62)
SDAI, LDA	323/794 (39.9)	3.73 (2.46, 5.65)	158/603 (23.6)	2.40 (1.39, 4.16)	384/978 (39.0)	4.31 (3.17, 5.86)	237/527 (43.7)	4.35 (2.83, 6.68)	129/373 (32.5)	3.73 (2.12, 6.55)	400/856 (46.8)	5.91 (4.34, 8.06)
SDAI, remission	51/794 (5.8)	6.10 (1.47, 25.35)	33/603 (4.4)	7.48 (1.01, 55.39)	92/978 (9.2)	22.18 (5.44, 90.50)	54/527 (8.8)	9.64 (2.32, 40.12)	32/373 (7.1)	12.29 (1.66, 91.19)	98/856 (11.0)	27.11 (6.65, 110.6)
LS mean	<i>N</i>	Mean (95% CI)	<i>N</i>	Mean (95% CI)	<i>N</i>	Mean (95% CI)	<i>N</i>	Mean (95% CI)	<i>N</i>	Mean (95% CI)	<i>N</i>	Mean (95% CI)
DAS28-4(CRP)	790	-2.24 (-2.34, -2.13)	602	-2.03 (-2.38, -1.67)	972	-1.92 (-1.99, -1.84)	524	-2.45 (-2.58, -2.33)	371	-2.28 (-2.63, -1.92)	853	-2.20 (-2.28, -2.12)

DAS28-4(ESR)	732	-2.20 (-2.31, -2.09)	561	-2.03 (-2.42, -1.64)	896	-1.97 (-2.06, -1.88)	473	-2.44 (-2.58, -2.29)	328	-2.30 (-2.69, -1.91)	774	-2.23 (-2.32, -2.14)
CDAI	793	-24.2 (-25.20, -23.25)	609	-21.6 (-24.96, -18.24)	966	-19.1 (-19.82, -18.29)	526	-25.2 (-26.45, -24.03)	375	-22.4 (-25.80, -19.06)	852	-21.1 (-21.86, -20.29)
HAQ-DI	797	-0.66 (-0.71, -0.62)	614	-0.56 (-0.73, -0.39)	981	-0.46 (-0.49, -0.43)	529	-0.76 (-0.82, -0.70)	376	-0.67 (-0.84, -0.50)	858	-0.55 (-0.59, -0.52)
FACIT-F	514	5.91 (4.62, 7.20)	344	5.63 (4.67, 6.59)	798	6.74 (6.11, 7.37)	501	6.32 (4.99, 7.64)	358	6.94 (5.99, 7.89)	834	7.19 (6.58, 7.80)
Pain VAS	797	-27.80 (-29.87, -25.73)	613	-30.85 (-37.23, -24.46)	979	-26.73 (-28.21, -25.24)	528	-29.93 (-32.50, -27.36)	375	-34.79 (-41.21, -28.37)	857	-28.96 (-30.49, -27.42)
Placebo-adjusted LS mean	N	Δ (95% CI)	N	Δ (95% CI)	N	Δ (95% CI)	N	Δ (95% CI)	N	Δ (95% CI)	N	Δ (95% CI)
DAS28-4(CRP)	790	-1.15 (-1.33, -0.97)	602	-1.05 (-1.25, -0.86)	972	-1.39 (-1.52, -1.27)	524	-1.37 (-1.56, -1.19)	371	-1.30 (-1.51, -1.09)	853	-1.67 (-1.80, -1.54)
DAS28-4(ESR)	732	-0.97 (-1.17, -0.77)	561	-0.87 (-1.10, -0.64)	896	-1.32 (-1.47, -1.18)	473	-1.21 (-1.42, -0.99)	328	-1.14 (-1.39, -0.90)	774	-1.58 (-1.73, -1.43)
CDAI	793	-9.13 (-10.8, -7.43)	609	-8.66 (-10.5, -6.81)	966	-11.9 (-13.2, -10.7)	526	-10.1 (-11.9, -8.36)	375	-9.46 (-11.5, -7.53)	852	-13.9 (-15.2, -12.7)
HAQ-DI	797	-0.34 (-0.42, -0.25)	614	-0.23 (-0.32, -0.14)	981	-0.37 (-0.43, -0.32)	529	-0.43 (-0.52, -0.34)	376	-0.34 (-0.44, -0.25)	858	-0.47 (-0.52, -0.41)
FACIT-F	514	3.36 (2.07, 4.66)	344	2.28 (0.75, 3.80)	798	6.28 (5.30, 7.27)	501	3.77 (2.47, 5.06)	358	3.59 (2.08, 5.10)	834	6.73 (5.75, 7.71)
Pain VAS	797	-14.29 (-17.60, -10.99)	613	-10.06 (-13.61, -6.52)	979	-19.24 (-21.59, -16.89)	528	-16.42 (-19.88, -12.95)	375	-14.00 (-17.75, -10.26)	857	-21.47 (-23.86, -19.09)

Placebo-adjusted LS mean Δ was calculated using a MMRM with treatment, geographical region, disease duration, visit, and treatment-by-visit interaction as fixed effects,

baseline value as a covariate and patient as a random effect, using compound symmetry variance-covariance structure

^aAt a country level, patients from tofacitinib phase 2/3/3b/4 clinical trials were stratified into low, medium, or high SDI tertiles, defined as scores of ≤ 0.708 , > 0.708 to ≤ 0.803 , or > 0.803 , respectively, using the GBD 2010 criteria

^bAdj. % (probability of response) is obtained from a logistic regression model including treatment and disease duration

Δ change from baseline, *ACR20/50/70* American College of Rheumatology improvement of $\geq 20\%/50\%/70\%$, *adj.* adjusted, *BID* twice daily, *CDAI* Clinical Disease Activity Index, *CI* confidence interval, *DAS28-4(CRP)* Disease Activity Score-28 with C-reactive protein, *DAS28-4(ESR)* DAS28-4 with erythrocyte sedimentation rate, *FACIT-F* Functional Assessment of Chronic Illness Therapy-Fatigue, *GBD* Global Burden of Diseases, Injuries, and Risk Factors study, *HAQ-DI* Health Assessment Questionnaire Disability Index, *LDA* low disease activity, *LS* least squares, *MMRM* mixed model of repeated measurements, *N* number of evaluable patients, *n* number of patients achieving endpoint, *OR* odds ratio, *PRO* patient-reported outcome, *SDAI* Simplified Disease Activity Index, *SDI* sociodemographic index, *VAS* Visual Analog Scale

Table S4 Efficacy outcomes and PROs at month 3 in patients receiving placebo, stratified by SDI tertile^a

	Low SDI		Medium SDI		High SDI	
ACR response	<i>N</i>	<i>n</i> (adj. % ^b)	<i>N</i>	<i>n</i> (adj. % ^b)	<i>N</i>	<i>n</i> (adj. % ^b)
ACR20	202	71 (35.8)	148	44 (29.9)	447	113 (25.4)
ACR50	201	31 (15.8)	148	9 (6.1)	447	47 (10.6)
ACR70	202	9 (4.7)	148	3 (2.0)	447	14 (3.1)
LDA/remission	<i>N</i>	<i>n</i> (adj. % ^b)	<i>N</i>	<i>n</i> (adj. % ^b)	<i>N</i>	<i>n</i> (adj. % ^b)
DAS28-4(CRP), LDA	199	27 (12.1)	147	12 (6.6)	445	56 (9.8)
DAS28-4(CRP), remission	199	16 (7.2)	147	5 (2.7)	445	32 (5.8)
DAS28-4(ESR), LDA	175	11 (5.6)	125	3 (1.6)	409	24 (4.4)
DAS28-4(ESR), remission	175	7 (3.6)	125	2 (1.0)	409	9 (1.6)
SDAI, LDA	199	31 (15.1)	146	17 (11.4)	444	60 (12.9)
SDAI, remission	199	2 (1.0)	146	1 (0.6)	444	2 (0.5)
LS mean	<i>N</i>	Mean (95% CI)	<i>N</i>	Mean (95% CI)	<i>N</i>	Mean (95% CI)
DAS28-4(CRP)	198	-1.05 (-1.23, -0.87)	146	-1.01 (-1.40, -0.62)	441	-0.53 (-0.64, -0.42)
DAS28-4(ESR)	173	-1.20 (-1.40, -0.99)	123	-1.19 (-1.63, -0.76)	406	-0.66 (-0.78, -0.53)
CDAI	201	-14.95 (-16.64, -13.26)	146	-13.06 (-16.71, -9.42)	443	-7.19 (-8.27, -6.10)
HAQ-DI	201	-0.31 (-0.40, -0.23)	148	-0.34 (-0.52, -0.16)	445	-0.09 (-0.14, -0.04)
FACIT-F	202	2.55 (0.99, 4.10)	147	3.35 (2.01, 4.69)	441	0.46 (-0.38, 1.29)

Pain VAS	202	-13.28 (-16.70, -9.86)	147	-21.35 (-28.31, -14.38)	443	-7.49 (-9.58, -5.41)
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^aAt a country level, patients from tofacitinib phase 2/3/3b/4 clinical trials were stratified into low, medium, or high SDI tertiles, defined as scores of ≤ 0.708 , > 0.708 to ≤ 0.803 , or > 0.803 , respectively, using the GBD 2010 criteria

^bAdj. % (probability of response) is obtained from a logistic regression model including treatment and disease duration

ACR20/50/70 American College of Rheumatology improvement of $\geq 20\%/50\%/70\%$, *adj.* adjusted, *bDMARD* biologic disease-modifying antirheumatic drug, *CDAI* Clinical Disease Activity Index, *CI* confidence interval, *DAS28-4(CRP)* Disease Activity Score in 28 joints with C-reactive protein, *DAS28-4(ESR)* DAS28-4 with erythrocyte sedimentation rate, *FACIT-F* Functional Assessment of Chronic Illness Therapy-Fatigue, *GBD* Global Burden of Diseases, Injuries, and Risk Factors study, *HAQ-DI* Health Assessment Questionnaire Disability Index, *LDA* low disease activity, *LS* least squares, *N* number of evaluable patients, *n* number of patients achieving endpoint, *SDAI* Simplified Disease Activity Index, *SDI* sociodemographic index, *VAS* Visual Analog Scale

Table S5 Efficacy outcomes at month 3, stratified by active treatment group and SDI tertile^a

Treatment	Combined tofacitinib doses ^b						Adalimumab 40 mg Q2W					
	Low SDI		Medium SDI		High SDI		Low SDI		Medium SDI		High SDI	
	<i>n/N</i> (adj. % ^c)	OR vs placebo and low SDI (95% CI)	<i>n/N</i> (adj. % ^c)	OR vs placebo and low SDI (95% CI)	<i>n/N</i> (adj. % ^c)	OR vs placebo and low SDI (95% CI)	<i>n/N</i> (adj. % ^c)	OR vs placebo and low SDI (95% CI)	<i>n/N</i> (adj. % ^c)	OR vs placebo and low SDI (95% CI)	<i>n/N</i> (adj. % ^c)	OR vs placebo and low SDI (95% CI)
ACR response												
ACR20	991/1328 (69.4)	-	622/990 (64.5)	0.73 (0.44, 1.20)	1207/1846 (67.8)	1.10 (0.74, 1.65)	130/176 (52.0)	-	134/205 (54.7)	1.01 (0.40, 2.53)	136/222 (62.9)	1.86 (0.81, 4.25)
ACR50	573/1330 (29.2)	-	289/989 (34.7)	1.59 (0.71, 3.55)	732/1847 (43.2)	1.48 (0.88, 2.48)	69/177 (12.8)	-	57/205 (26.6)	3.04 (0.90, 10.29)	75/221 (30.9)	2.44 (0.91, 6.58)
ACR70	271/1329 (13.1)	-	117/990 (13.7)	1.33 (0.34, 5.16)	362/1848 (19.2)	1.55 (0.64, 3.75)	31/177 (4.3)	-	16/206 (6.2)	1.87 (0.24, 14.48)	28/220 (10.1)	2.44 (0.26, 22.62)
LDA/remission												
DAS28-4 (CRP), LDA	583/1322 (42.3)	-	301/976 (32.2)	0.94 (0.44, 1.99)	833/1840 (41.1)	1.38 (0.81, 2.36)	71/180 (35.9)	-	63/205 (31.0)	1.16 (0.49, 2.74)	79/221 (31.5)	1.20 (0.61, 2.36)
DAS28-4 (CRP), remission	357/1322 (18.7)	-	176/976 (23.3)	1.48 (0.51, 4.27)	520/1840 (28.5)	1.42 (0.74, 2.75)	37/180 (13.0)	-	32/205 (19.2)	1.78 (0.55, 5.76)	45/221 (20.6)	1.41 (0.62, 3.21)
DAS28-4 (ESR), LDA	249/1222 (14.8)	-	142/892 (18.4)	2.44 (0.64, 9.22)	433/1687 (22.1)	1.98 (0.91, 4.31)	31/168 (13.3)	-	26/197 (13.9)	1.97 (0.46, 8.31)	44/214 (16.8)	1.59 (0.63, 4.05)
DAS28-4 (ESR), remission	107/1222 (7.3)	-	72/892 (6.7)	3.21 (0.63, 16.41)	231/1687 (8.1)	4.71 (1.65, 13.48)	15/168 (7.7)	-	9/197 (3.3)	1.45 (0.23, 9.05)	19/214 (5.0)	2.65 (0.75, 9.39)
SDAI, LDA	560/1321 (41.3)	-	287/976 (27.3)	0.74 (0.38, 1.45)	784/1834 (37.1)	1.41 (0.85, 2.34)	75/180 (36.8)	-	59/205 (25.5)	0.81 (0.37, 1.79)	74/220 (25.9)	1.01 (0.53, 1.93)
SDAI, remission	105/1321 (4.9)	-	65/976 (7.2)	1.37 (0.12, 15.60)	190/1834 (7.8)	3.61 (0.50, 26.38)	13/180 (4.2)	-	10/205 (5.3)	1.16 (0.09, 15.02)	16/220 (5.2)	2.74 (0.33, 22.84)

^aAt a country level, patients from tofacitinib phase 2/3/3b/4 clinical trials were stratified into low, medium, or high SDI tertiles, defined as scores of ≤ 0.708 , > 0.708 to ≤ 0.803 , or > 0.803 , respectively, using the GBD 2010 criteria

^bData are pooled for patients who received tofacitinib 5 or 10 mg BID

^cAdj. % (probability of response) is obtained from a logistic regression model including treatment, SDI tertile, treatment-by-SDI tertile interaction, geographical region and disease duration

ACR20/50/70 American College of Rheumatology improvement of $\geq 20\%/50\%/70\%$, *adj.* adjusted, *BID* twice daily, *CI* confidence interval, *DAS28-4(CRP)* Disease Activity Score in 28 joints with C-reactive protein, *DAS28-4(ESR)* DAS28-4 with erythrocyte sedimentation rate, *GBD* Global Burden of Diseases, Injuries, and Risk Factors study, *LDA* low disease activity, *N* number of evaluable patients, *n* number of patients achieving endpoint, *OR* odds ratio, *Q2W* every 2 weeks, *SDAI* Simplified Disease Activity Index, *SDI* sociodemographic index

Table S6 Types of first serious infections reported, stratified by treatment group and SDI tertile^a

Treatment	Combined tofacitinib doses ^b			Adalimumab 40 mg Q2W			Placebo		
	Low	Medium	High	Low	Medium	High	Low	Medium	High
	SDI (N = 1444)	SDI (N = 1068)	SDI (N = 2121)	SDI (N = 191)	SDI (N = 214)	SDI (N = 238)	SDI (N = 253)	SDI (N = 184)	SDI (N = 642)
Abscess limb	0 (0.00)	0 (0.00)	1 (0.05)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Anal abscess	1 (0.07)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Arthritis bacterial	2 (0.14)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Atypical pneumonia	2 (0.14)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Bacterial sepsis	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	1 (0.40)	0 (0.00)	0 (0.00)
Bacteremia	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	1 (0.47)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Bone tuberculosis	1 (0.07)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Breast abscess	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	1 (0.42)	0 (0.00)	0 (0.00)	0 (0.00)
Bronchitis	1 (0.07)	0 (0.00)	2 (0.09)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Bronchitis bacterial	0 (0.00)	0 (0.00)	1 (0.05)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Bronchopneumonia	1 (0.07)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Cellulitis	2 (0.14)	3 (0.28)	6 (0.28)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	1 (0.16)
Clostridial sepsis	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	1 (0.42)	0 (0.00)	0 (0.00)	0 (0.00)

Clostridium difficile infection	0 (0.00)	0 (0.00)	1 (0.05)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Cytomegalovirus viraemia	0 (0.00)	0 (0.00)	1 (0.05)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Dengue fever	2 (0.14)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Diabetic foot infection	0 (0.00)	0 (0.00)	1 (0.05)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Diverticulitis	0 (0.00)	1 (0.09)	1 (0.05)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Enterocolitis bacterial	0 (0.00)	0 (0.00)	1 (0.05)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Erysipelas	0 (0.00)	1 (0.09)	0 (0.00)	0 (0.00)	0 (0.00)	1 (0.42)	0 (0.00)	0 (0.00)	0 (0.00)
Gallbladder empyema	0 (0.00)	0 (0.00)	0 (0.00)	1 (0.52)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Gastroenteritis	4 (0.28)	0 (0.00)	1 (0.05)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	1 (0.16)
Gastrointestinal infection	1 (0.07)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Herpes zoster	2 (0.14)	1 (0.09)	9 (0.42)	1 (0.52)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Herpes zoster disseminated	0 (0.00)	1 (0.09)	1 (0.05)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Influenza	0 (0.00)	0 (0.00)	2 (0.09)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)

[illegible]

Pneumonia viral	0 (0.00)	0 (0.00)	1 (0.05)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Pulmonary tuberculosis	4 (0.28)	0 (0.00)	1 (0.05)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Pyelonephritis	1 (0.07)	2 (0.19)	1 (0.05)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Pyelonephritis acute	0 (0.00)	0 (0.00)	1 (0.05)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Pyelonephritis chronic	0 (0.00)	1 (0.09)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Salpingo-oophoritis	0 (0.00)	1 (0.09)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Sepsis	1 (0.07)	1 (0.09)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Septic shock	0 (0.00)	0 (0.00)	1 (0.05)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Sialoadenitis	0 (0.00)	0 (0.00)	1 (0.05)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	1 (0.16)
Subcutaneous abscess	1 (0.07)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Tonsillitis bacterial	1 (0.07)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Tracheobronchitis	1 (0.07)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Tuberculous pleurisy	1 (0.07)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Upper respiratory tract infection	0 (0.00)	0 (0.00)	1 (0.05)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)

Urinary tract infection	2 (0.14)	0 (0.00)	2 (0.09)	0 (0.00)	0 (0.00)	1 (0.42)	0 (0.00)	0 (0.00)	0 (0.00)
Urosepsis	1 (0.07)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Varicella zoster virus infection	1 (0.07)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Wound infection	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	1 (0.16)

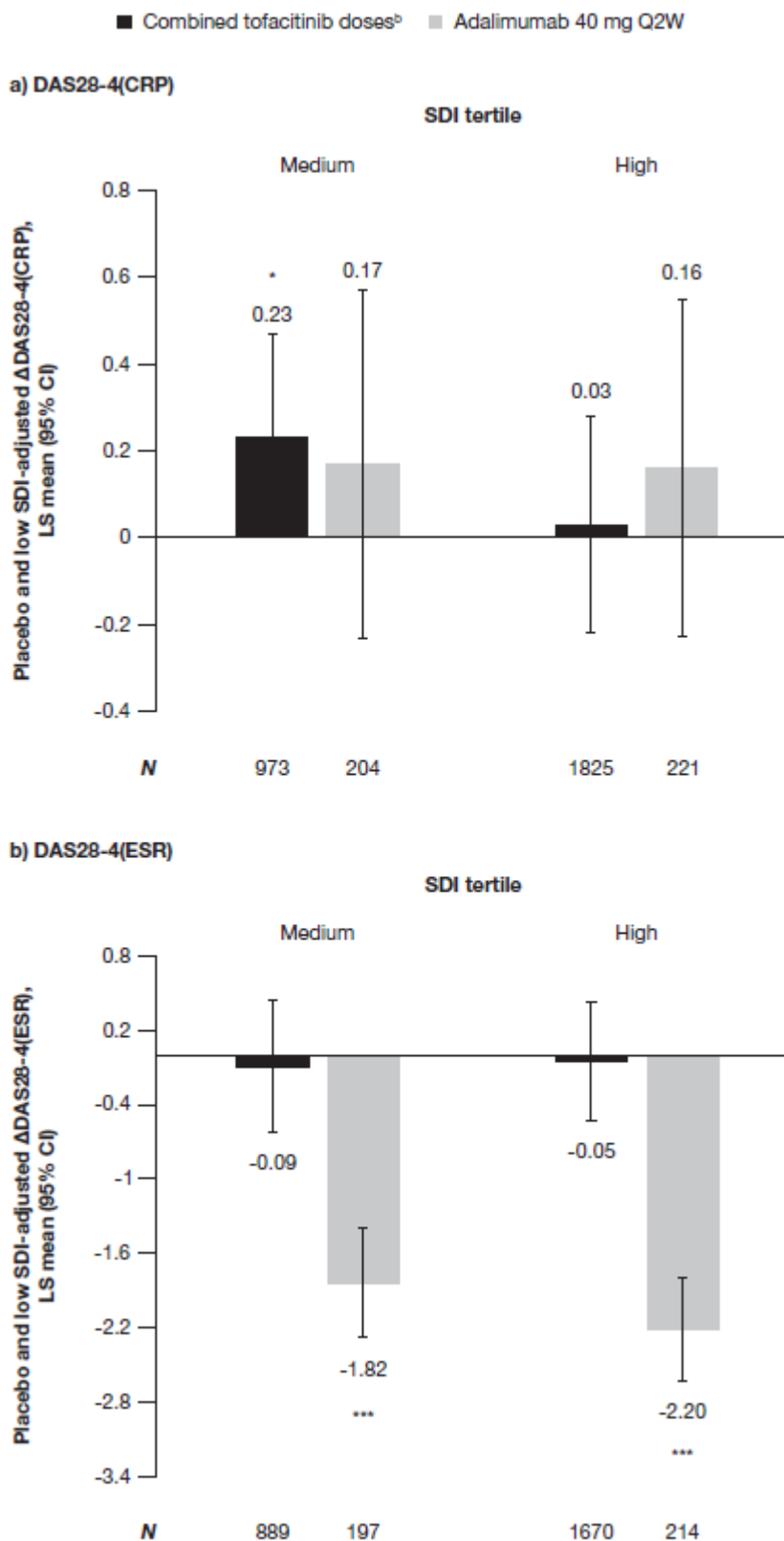
Values are *n* (%)

^aAt a country level, patients from tofacitinib phase 2/3/3b/4 clinical trials were stratified into low, medium, or high SDI tertiles, defined as scores of ≤ 0.708 , > 0.708 to ≤ 0.803 , or > 0.803 , respectively, using the GBD 2010 criteria

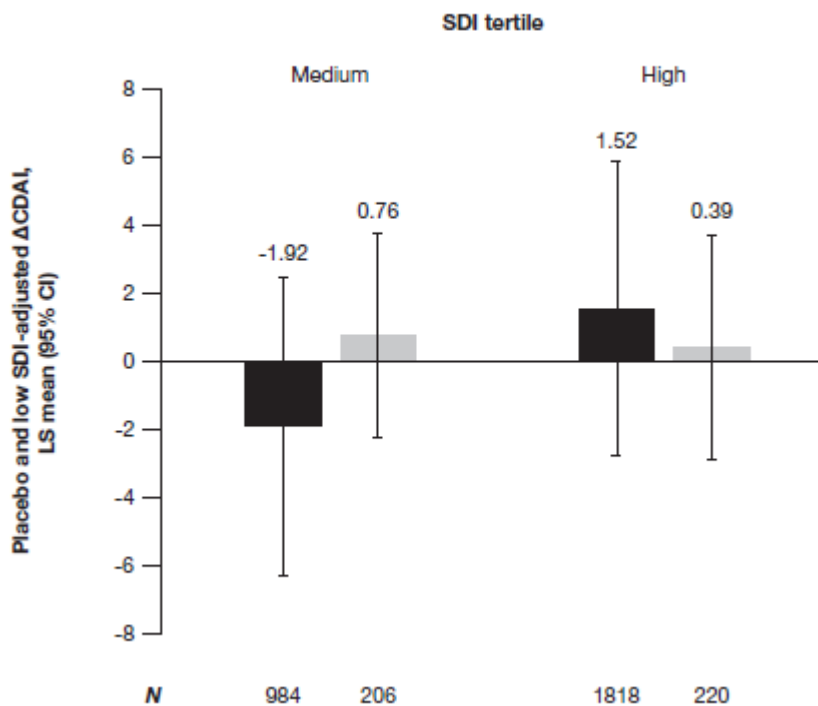
^bData are pooled for patients who received tofacitinib 5 or 10 mg BID

BID twice daily, *GBD* Global Burden of Diseases, Injuries, and Risk Factors study, *N* number of evaluable patients, *n* number of patients with a given first serious infection, *Q2W* every 2 weeks, *SDI* sociodemographic index

Fig. S1 Placebo and low SDI-adjusted **a)** Δ DAS28-4(CRP), **b)** Δ DAS28-4(ESR), and **c)** Δ CDAI at month 3, stratified by active treatment group and SDI tertile^a



c) CDAI



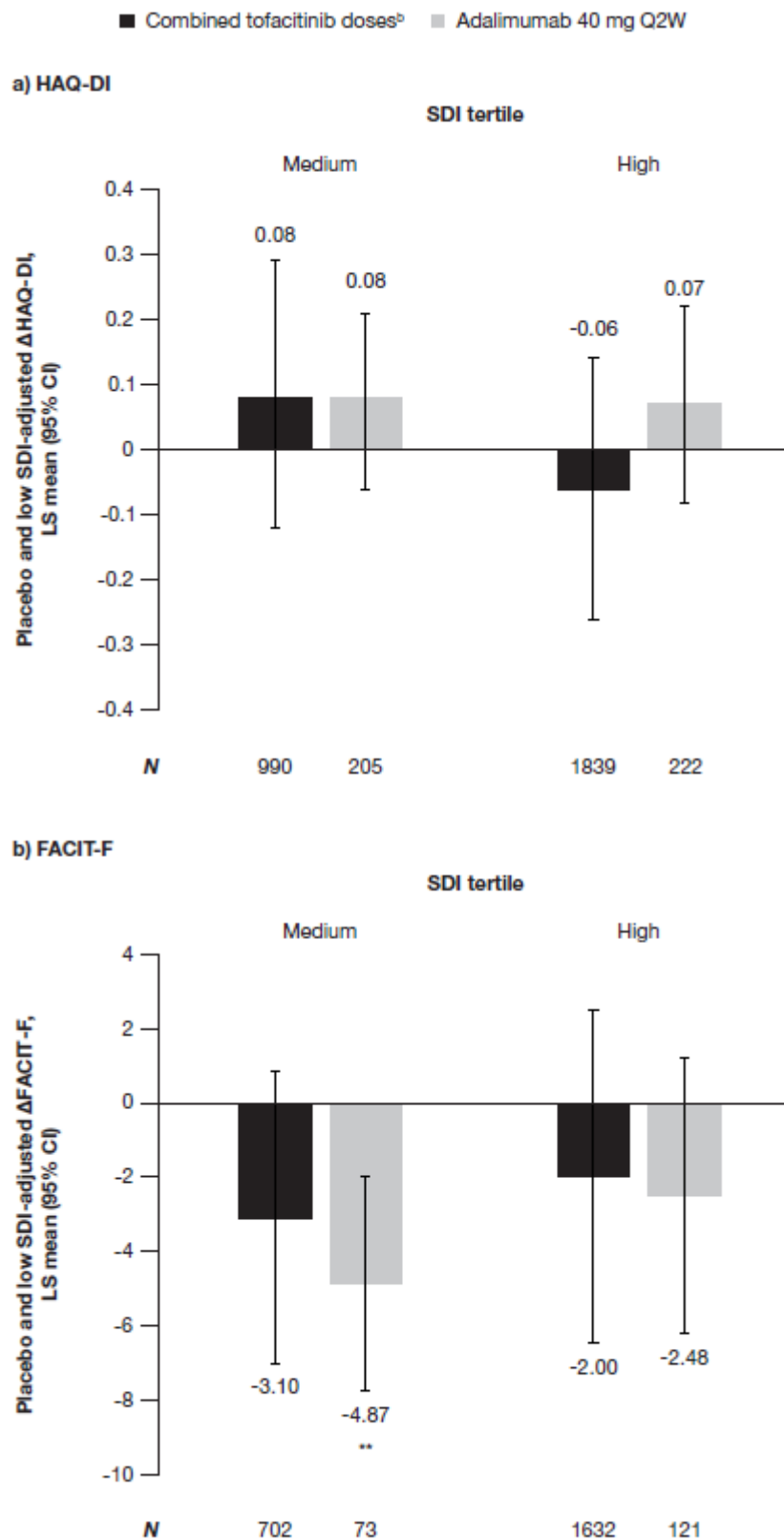
Combined tofacitinib doses or adalimumab vs placebo and low SDI: $*p \leq 0.05$, $***p \leq 0.0001$. Placebo and low SDI-adjusted LS mean Δ was calculated using an MMRM with treatment, SDI tertile, visit, geographical region, and disease duration as fixed effects, baseline value as a covariate, and treatment-by-SDI tertile, treatment-by-visit, SDI tertile-by-visit, and treatment-by-visit-by-SDI tertile as interaction terms.

^aAt a country level, patients from tofacitinib phase 2/3/3b/4 clinical trials were stratified into low, medium, or high SDI tertiles, defined as scores of ≤ 0.708 , > 0.708 to ≤ 0.803 , or > 0.803 , respectively, using the GBD 2010 criteria.

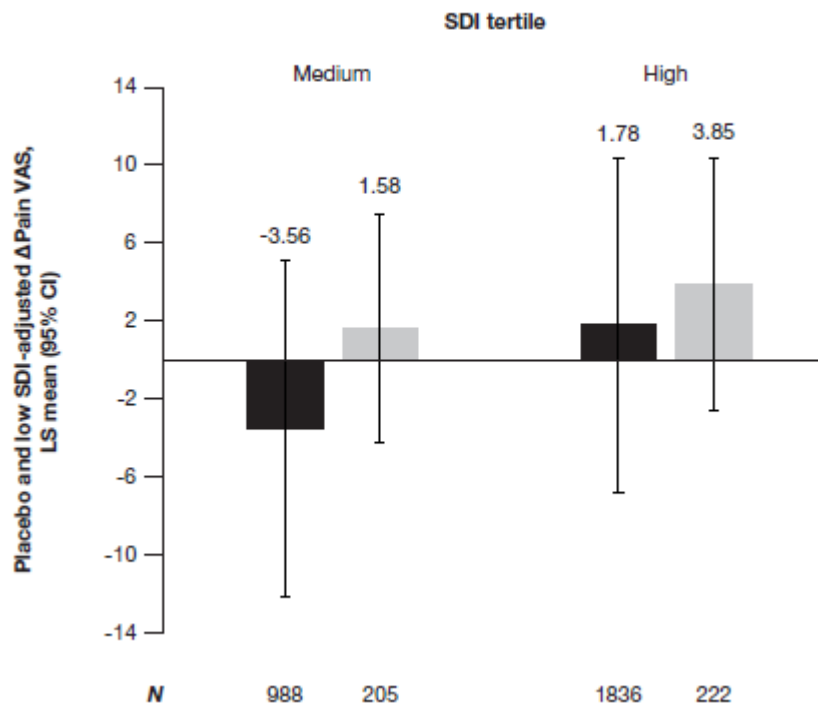
^bData are pooled for patients who received tofacitinib 5 or 10 mg BID.

Δ change from baseline, *BID* twice daily, *CDAI* Clinical Disease Activity Index, *CI* confidence interval, *DAS28-4(CRP)* Disease Activity Score-28 with C-reactive protein, *DAS28-4(ESR)* DAS28-4 with erythrocyte sedimentation rate, *GBD* Global Burden of Diseases, Injuries, and Risk Factors study, *LS* least squares, *MMRM* mixed model of repeated measurements, *N* number of evaluable patients, *Q2W* every 2 weeks, *SDI* sociodemographic index

Fig. S2 Placebo and low SDI-adjusted **a)** Δ HAQ-DI, **b)** Δ FACIT-F, and **c)** Δ Pain VAS at month 3, stratified by active treatment group and SDI tertile^a



c) Pain VAS



Combined tofacitinib doses or adalimumab vs placebo and low SDI: $**p \leq 0.001$. Placebo and low SDI-adjusted LS mean Δ was calculated using an MMRM with treatment, SDI tertile, visit, geographical region, and disease duration as fixed effects, baseline value as a covariate, and treatment-by-SDI tertile, treatment-by-visit, SDI tertile-by-visit, and treatment-by-visit-by-SDI tertile as interaction terms.

^aAt a country level, patients from tofacitinib phase 2/3/3b/4 clinical trials were stratified into low, medium, or high SDI tertiles, defined as scores of ≤ 0.708 , > 0.708 to ≤ 0.803 , or > 0.803 , respectively, using the GBD 2010 criteria.

^bData are pooled for patients who received tofacitinib 5 or 10 mg BID.

Δ change from baseline, *BID* twice daily, *CI* confidence interval, *FACIT-F* Functional Assessment of Chronic Illness Therapy-Fatigue, *GBD* Global Burden of Diseases, Injuries, and Risk Factors study, *HAQ-DI* Health Assessment Questionnaire Disability Index, *LS* least squares, *MMRM* mixed model of repeated measurements, *N* number of evaluable patients, *Q2W* every 2 weeks, *SDI* sociodemographic index, *VAS* Visual Analog Scale