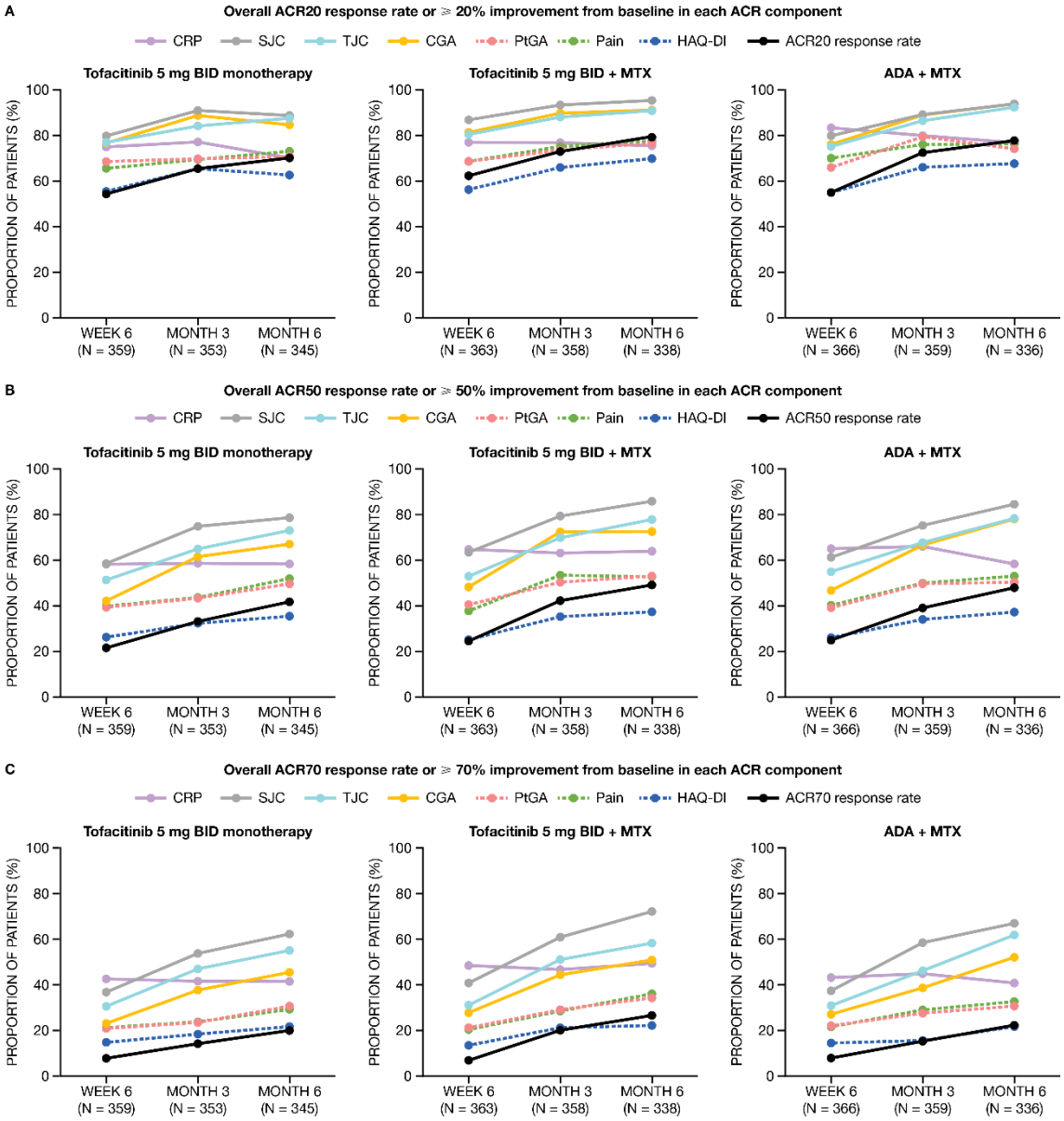
ONLINE SUPPLEMENTARY MATERIAL

Supplementary Figure 1. Head-to-head cohort[a]: proportions of patients treated with tofacitinib 5 mg BID monotherapy, tofacitinib 5 mg BID + MTX, or ADA + MTX who reported an (A) overall ACR20 response or ≥ 20% improvement from baseline in each ACR component, an (B) overall ACR50 response or ≥ 50% improvement from baseline in each ACR component, and an (C) overall ACR70 response or ≥ 70% improvement from baseline in each ACR component up to Month 6 (FAS)



Analyses are based on observed case data in patients with all seven ACR components assessed at the analyzed time point. [a] Data were from the phase IIIb/IV ORAL Strategy (NCT02187055) study.

ACR: American College of Rheumatology; ACR20/50/70: American College of Rheumatology ≥ 20/50/70% response rates; ADA: adalimumab; BID: twice daily; CGA: Clinician Global Assessment; CRP: C-reactive protein; FAS: full analysis set; HAQ-DI: Health Assessment Questionnaire-Disability Index; MTX: methotrexate; N: number of evaluable patients; Pain: patient-reported pain (Visual Analog Scale); PtGA: Patient Global Assessment of Disease Activity; SJC; swollen joint count; TJC; tender joint count.

Supplementary Table 1A. Head-to-head cohort[a]: relative contribution of the secondary ACR components (CGA, PtGA, Pain, HAQ-DI, and CRP) to the overall ACR20 response rates in patients treated with tofacitinib 5 mg BID monotherapy, tofacitinib 5 mg BID + MTX, or ADA + MTX at Month 3 (FAS)

Tofacitinib 5 mg BID monotherapy (N = 353)		**Tofacitinib 5 mg BID + MTX (N = 358)**		**ADA + MTX (N = 359)**	
ACR component (by rank)	**n (%)**	**ACR component (by rank)**	**n (%)**	**ACR component (by rank)**	**n (%)**
1. CGA	197 (55.8)	1. CGA	222 (62.0)	1. CGA	222 (61.8)
2. CRP	208 (58.9)	2. Pain	235 (65.6)	2. PtGA	231 (64.4)
3. Pain	213 (60.3)	2. CRP	235 (65.6)	3. Pain	232 (64.6)
3. PtGA	213 (60.3)	4. PtGA	237 (66.2)	4. CRP	237 (66.0)
3. HAQ-DI	213 (60.3)	5. HAQ-DI	247 (69.0)	5. HAQ-DI	246 (68.5)

Supplementary Table 1B. Head-to-head cohort[a]: relative contribution of the secondary ACR components (CGA, PtGA, Pain, HAQ-DI, and CRP) to the overall ACR50 response rates in patients treated with tofacitinib 5 mg BID monotherapy, tofacitinib 5 mg BID + MTX, or ADA + MTX at Month 3 (FAS)

Tofacitinib 5 mg BID monotherapy (N = 353)		**Tofacitinib 5 mg BID + MTX (N = 358)**		**ADA + MTX (N = 359)**	
ACR component (by rank)	**n (%)**	**ACR component (by rank)**	**n (%)**	**ACR component (by rank)**	**n (%)**
1. CGA	88 (24.9)	1. CGA	119 (33.2)	1. CGA	105 (29.3)
2. Pain	93 (26.4)	2. Pain	123 (34.4)	2. Pain	113 (31.5)
3. PtGA	94 (26.6)	3. PtGA	131 (36.6)	3. PtGA	116 (32.3)
4. CRP	98 (27.8)	4. CRP	136 (38.0)	4. CRP	118 (32.9)
5. HAQ-DI	101 (28.6)	5. HAQ-DI	144 (40.2)	5. HAQ-DI	128 (35.7)

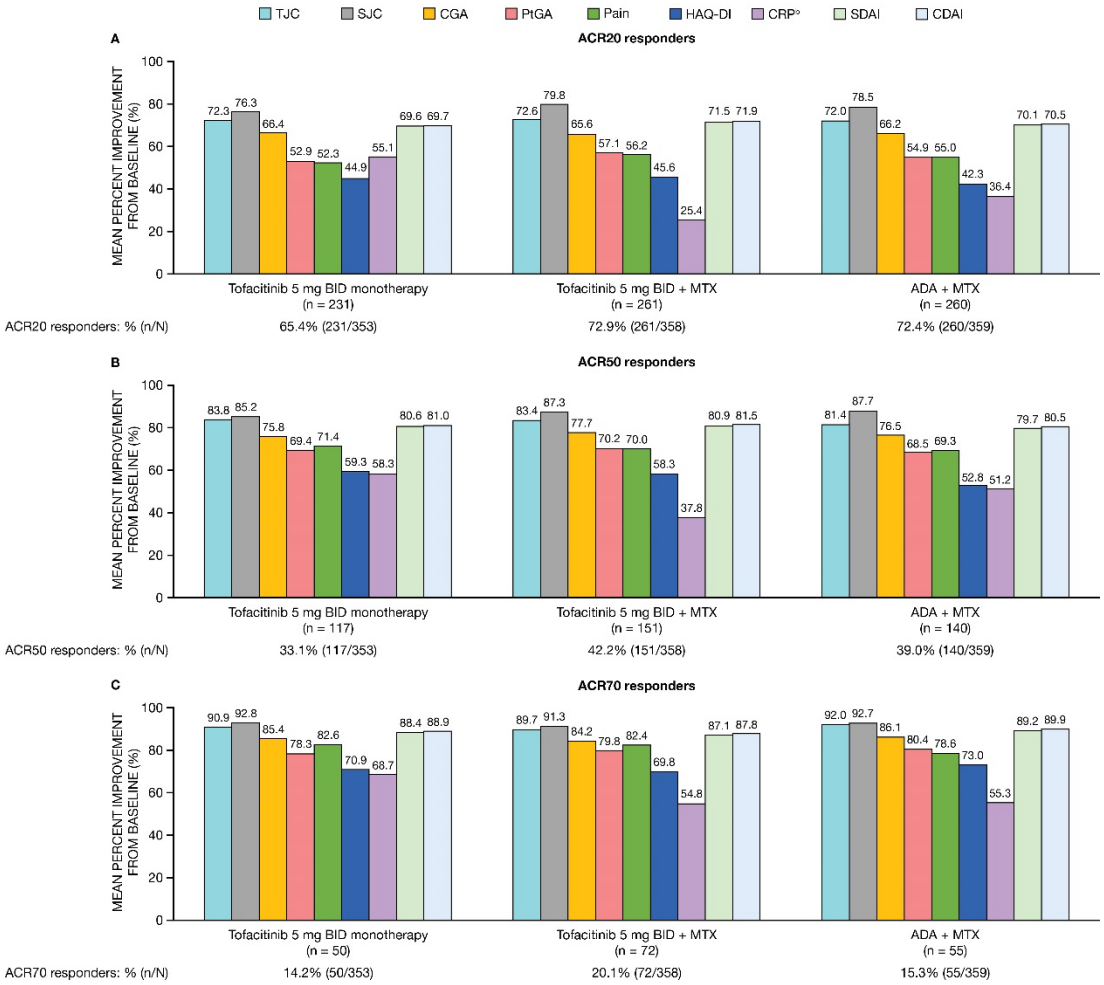
Supplementary Table 1C. Head-to-head cohort[a]: relative contribution of the secondary ACR components (CGA, PtGA, Pain, HAQ-DI, and CRP) to the overall ACR70 response rates in patients treated with tofacitinib 5 mg BID monotherapy, tofacitinib 5 mg BID + MTX, or ADA + MTX at Month 3 (FAS)

Tofacitinib 5 mg BID monotherapy (N = 353)		**Tofacitinib 5 mg BID + MTX (N = 358)**		**ADA + MTX (N = 359)**	
ACR component (by rank)	**n (%)**	**ACR component (by rank)**	**n (%)**	**ACR component (by rank)**	**n (%)**
1. CGA	36 (10.2)	1. CGA	48 (13.4)	1. Pain	36 (10.0)
2. Pain	38 (10.8)	2. Pain	54 (15.1)	2. CGA	37 (10.3)
3. PtGA	40 (11.3)	2. PtGA	54 (15.1)	3. PtGA	43 (12.0)
4. CRP	43 (12.2)	4. CRP	58 (16.2)	4. CRP	46 (12.8)
5. HAQ-DI	45 (12.8)	5. HAQ-DI	65 (18.2)	5. HAQ-DI	47 (13.1)

To assess the relative contribution of each secondary ACR component (CGA, PtGA, Pain, HAQ-DI, and CRP) to the attainment of the overall ACR20 response rate, each component was sequentially set to 'no improvement' (i.e., value of 0 in change from baseline) and the ACR20 response rate was recalculated. The resulting response rates were then rank-ordered from 1–5, with 1 representing the largest contribution, corresponding to the largest decrease in ACR20 response rate; and 5 representing the smallest contribution, corresponding to the smallest decrease in ACR20 response rate. The same approach was used to assess the relative contribution of each secondary ACR component to the attainment of the overall ACR50 and ACR70 response rates. Analyses are based on observed case data in patients with all seven ACR components assessed at the analyzed time point. [a] Data were from the phase IIIb/IV ORAL Strategy (NCT02187055) study. ACR: American College of Rheumatology; ACR20/50/70: American College of Rheumatology ≥ 20/50/70% response rates; ADA: adalimumab;

BID: twice daily; CGA: Clinician Global Assessment; CRP: C-reactive protein; FAS: full analysis set; HAQ-DI: Health Assessment Questionnaire-Disability Index; MTX: methotrexate; n: number of patients achieving ≥ 20/50/70% improvement when each secondary ACR component is set to 'no improvement' (i.e., value of 0 in change from baseline) and the ACR20/50/70 response rates were recalculated; N: number of evaluable patients; Pain: patient-reported pain (Visual Analog Scale); PtGA: Patient Global Assessment of Disease Activity.

Supplementary Figure 2. Head-to-head cohort[a]: mean percent improvement from baseline in the ACR components, SDAI score, and CDAI score in patients treated with tofacitinib 5 mg BID monotherapy, tofacitinib 5 mg BID + MTX, or ADA + MTX achieving overall (A) ACR20, (B) ACR50, or (C) ACR70 responses at Month 3 (FAS)

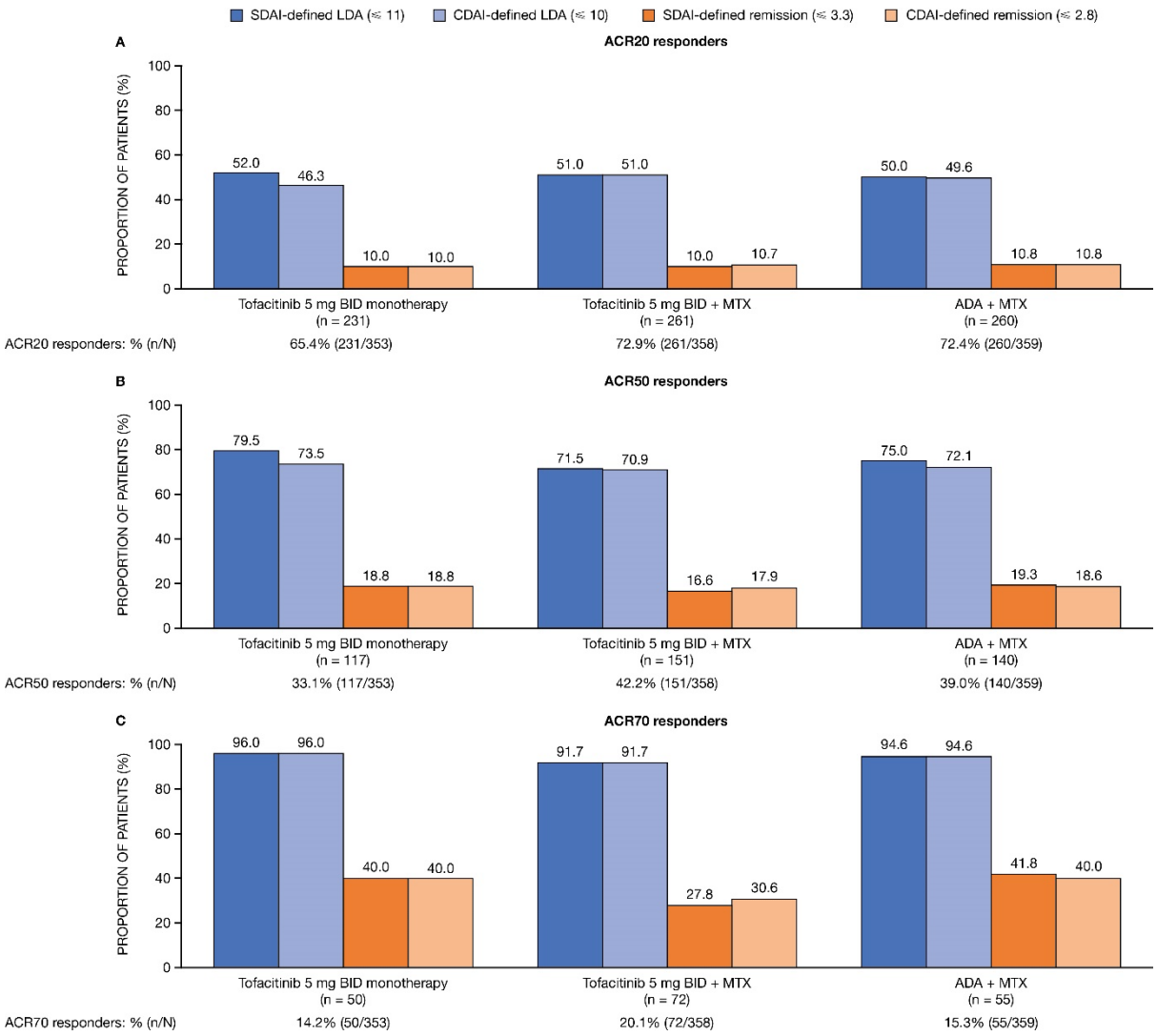


Analyses are based on observed case data in patients with all seven ACR components assessed at the analyzed time point. [a] Data were from the phase IIIb/IV ORAL Strategy (NCT02187055) study. [b] Median percent improvements from baseline in CRP across tofacitinib and ADA groups were 69.6–70.0%, 71.5–74.9%, and 76.5–83.3% for ACR20, ACR50, and ACR70 responders, respectively.

ACR: American College of Rheumatology; ACR20/50/70: American College of Rheumatology ≥ 20/50/70% response rates; ADA: adalimumab; BID: twice daily; CGA: Clinician Global

Assessment; CDAI: Clinical Disease Activity Index; CRP: C-reactive protein; FAS: full analysis set; HAQ-DI: Health Assessment Questionnaire-Disability Index; MTX: methotrexate; n: number of patients achieving overall ACR20/50/70 responses at Month 3; N: number of evaluable patients; Pain: patient-reported pain (Visual Analog Scale); PtGA: Patient Global Assessment of Disease Activity; SDAI: Simplified Disease Activity Index; SJC: swollen joint count; TJC: tender joint count.

Supplementary Figure 3. Head-to-head cohort[a]: proportions of (A) ACR20, (B) ACR50, and (C) ACR70 responders treated with tofacitinib 5 mg BID monotherapy, tofacitinib 5 mg BID + MTX, or ADA + MTX achieving SDAI- or CDAI-defined LDA or remission at Month 3 (FAS)



Analyses are based on observed case data in patients with all seven ACR components assessed at the analyzed time point. ACR20/50/70 responders were defined as patients achieving improvements in ACR criteria ≥ 20/50/70%, respectively. [a] Data were from the phase IIIb/IV ORAL Strategy (NCT02187055) study. ACR: American College of Rheumatology; ACR20/50/70: American College of Rheumatology ≥ 20/50/70% response rates; ADA: adalimumab; BID: twice daily; CDAI: Clinical Disease Activity Index; FAS: full analysis set; LDA: low disease activity; MTX: methotrexate;

n: number of ACR20/50/70 responders; N: number of evaluable patients; SDAI: Simplified Disease Activity Index.

Supplementary Table 2. Head-to-head cohort[a]: relative contribution of SDAI or CDAI components to the mean change from baseline in SDAI or CDAI scores, respectively, in patients treated with tofacitinib 5 mg BID monotherapy, tofacitinib 5 mg BID + MTX, or ADA + MTX at Month 3 (FAS)

Tofacitinib 5 mg BID monotherapy (N = 353)		**Tofacitinib 5 mg BID + MTX (N = 358)**		**ADA + MTX (N = 359)**	
Component (by rank)	**Change from baseline, mean (SD)**	**Component (by rank)**	**Change from baseline, mean (SD)**	**Component (by rank)**	**Change from baseline, mean (SD)**
SDAI components					
1. TJC	-14.1 (8.7)	1. TJC	-16.1 (9.2)	1. TJC	-14.4 (9.0)
2. SJC	-15.8 (9.9)	2. SJC	-17.4 (10.2)	2. SJC	-16.1 (10.4)
3. CGA	-19.8 (12.3)	3. CGA	-22.1 (12.9)	3. CGA	-19.9 (13.0)
4. PtGA	-20.5 (12.5)	4. PtGA	-22.7 (12.9)	4. PtGA	-20.6 (13.1)
5. CRP	-22.2 (13.1)	5. CRP	-24.5 (13.6)	5. CRP	-22.4 (13.9)
CDAI components					
1. TJC	-13.1 (8.1)	1.TJC	-14.9 (8.4)	1. TJC	-13.4 (8.6)
2. SJC	-14.8 (9.3)	2. SJC	-16.2 (9.5)	2. SJC	-15.2 (9.9)
3. CGA	-18.8 (11.8)	3. CGA	-20.9 (12.3)	3. CGA	-19.0 (12.6)
4. PtGA	-19.5 (12.0)	4. PtGA	-21.5 (12.3)	4. PtGA	-19.6 (12.7)

To assess the relative contribution of each SDAI component (TJC, SJC, CGA, PtGA, and CRP) to mean change from baseline in SDAI, each component was sequentially set to ‘no improvement’

(i.e., value of 0 in change from baseline for each component) and the mean change from baseline in SDAI was recalculated. The resulting mean change from baseline in SDAI was compared numerically with the overall SDAI score and then rank-ordered from 1–5, with 1 representing the largest decrease in improvement compared with the overall SDAI score; and 5 representing the smallest decrease in improvement compared with the overall SDAI score. To assess the relative contribution of each CDAI component (TJC, SJC, CGA, and PtGA) to mean change from baseline in CDAI, each component was sequentially set to 'no improvement' (i.e., value of 0 in change from baseline for each component) and the mean change from baseline in CDAI was recalculated. The resulting mean change from baseline in CDAI was compared numerically with the overall CDAI score and then rank-ordered from 1–4, with 1 representing the largest decrease in improvement compared with the overall CDAI score; and 4 representing the smallest decrease in improvement compared with the overall CDAI score. Analyses are based on observed case data in patients with all seven ACR components assessed at the analyzed time point. [a] Data were from the phase IIIb/IV ORAL Strategy (NCT02187055) study. ACR: American College of Rheumatology; ADA: adalimumab; BID: twice daily; CDAI: Clinical Disease Activity Index; CGA: Clinician Global Assessment; CRP: C-reactive protein; FAS: full analysis set; MTX: methotrexate; N: number of evaluable patients; PtGA: Patient Global Assessment of Disease Activity; SD: standard deviation; SDAI: Simplified Disease Activity Index; SJC: swollen joint count; TJC: tender joint count.