## SUPPLEMENTARY MATERIAL

**Supplementary table 1** Patient demographics and baseline disease characteristics by baseline BMI category and treatment (pooled data from OPAL Broaden and OPAL Beyond)

| | **Baseline BMI category** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **<25 kg/m² (Underweight/ Normal)** | | | **≥25–<30 kg/m² (Overweight)** | | | **≥30–<35 kg/m² (Class 1 Obesity)** | | | **≥35 kg/m² (Class 2 & 3 Obesity)** | | |
| | **Tofacitinib 5 mg BID N=51** | **Tofacitinib 10 mg BID N=49** | **Placebo N=61** | **Tofacitinib 5 mg BID N=87** | **Tofacitinib 10 mg BID N=79** | **Placebo N=72** | **Tofacitinib 5 mg BID N=58** | **Tofacitinib 10 mg BID N=65** | **Placebo N=63** | **Tofacitinib 5 mg BID N=42** | **Tofacitinib 10 mg BID N=43** | **Placebo N=40** |
| **Patient demographics** | | | | | | | | | | | | |
| Age, years, mean (SD) | 44.0 (13.9) | 44.7 (12.5) | 44.8 (12.4) | 52.2 (11.2) | 49.4 (11.3) | 48.0 (12.8) | 51.2 (11.3) | 50.4 (11.2) | 50.0 (12.9) | 48.0 (12.3) | 53.2 (11.0) | 52.3 (10.0) |
| Female, n (%) | 28 (54.9) | 31 (63.3) | 42 (68.9) | 38 (43.7) | 42 (53.2) | 38 (52.8) | 26 (44.8) | 37 (56.9) | 29 (46.0) | 29 (69.0) | 26 (60.5) | 27 (67.5) |
| White, n (%) | 49 (96.1) | 43 (87.8) | 57 (93.4) | 82 (94.3) | 73 (92.4) | 69 (95.8) | 54 (93.1) | 63 (96.9) | 58 (92.1) | 41 (97.6) | 42 (97.7) | 38 (95.0) |
| BMI, kg/m², mean (SD) | 22.3 (1.8) | 22.6 (1.7) | 22.5 (1.7) | 27.5 (1.3) | 27.6 (1.4) | 27.4 (1.5) | 32.3 (1.3) | 32.4 (1.4) | 32.2 (1.6) | 40.3 (4.6) | 40.3 (4.3) | 38.1 (2.8) |
| Weight, kg, n (%) | | | | | | | | | | | | |
| <60 | 19 (37.3) | 17 (34.7) | 19 (31.1) | 0 | 0 | 0 | 1 (1.7) | 0 | 0 | 0 | 1 (2.3) | 0 |
| ≥60–<90 | 31 (60.8) | 31 (63.3) | 42 (68.9) | 70 (80.5) | 66 (83.5) | 66 (91.7) | 21 (36.2) | 29 (44.6) | 28 (44.4) | 2 (4.8) | 3 (7.0) | 6 (15.0) |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ≥90 | 1 (2.0) | 1 (2.0) | 0 | 17 (19.5) | 13 (16.5) | 6 (8.3) | 36 (62.1) | 36 (55.4) | 35 (55.6) | 40 (95.2) | 39 (90.7) | 34 (85.0) |
| Waist circumference,* cm, mean (SD) | 82.3 (8.8) | 81.1 (9.1) | 79.7 (9.1) | 96.8 (11.9) | 94.5 (10.3) | 94.0 (8.7) | 105.5 (9.4) | 106.2 (9.7) | 106.2 (9.0) | 118.3 (13.4) | 121.7 (14.0) | 113.7 (11.2) |
| Metabolic syndrome,† n (%) | 2 (3.9) | 3 (6.1) | 2 (3.3) | 35 (40.2) | 25 (31.6) | 25 (34.7) | 29 (50.0) | 43 (66.2) | 35 (55.6) | 33 (78.6) | 30 (69.8) | 32 (80.0) |
| Never smoked, n (%) | 34 (66.7) | 31 (63.3) | 45 (73.8) | 54 (62.1) | 47 (59.5) | 46 (63.9) | 28 (48.3) | 37 (56.9) | 43 (68.3) | 23 (54.8) | 25 (58.1) | 24 (60.0) |
| **Baseline disease characteristics** | | | | | | | | | | | | |
| PsA duration, years, mean (SD) | 9.1 (8.5) | 6.5 (5.3) | 8.6 (8.5) | 8.3 (8.8) | 8.2 (7.2) | 7.4 (7.4) | 8.8 (7.3) | 7.7 (7.1) | 9.0 (7.0) | 8.1 (6.2) | 6.9 (6.0) | 7.0 (6.8) |
| HAQ-DI, mean (SD) | 1.1 (0.6) | 1.1 (0.6) | 1.2 (0.7) | 1.2 (0.7) | 1.2 (0.7) | 0.9 (0.6) | 1.2 (0.6) | 1.3 (0.6) | 1.3 (0.6) | 1.4 (0.7) | 1.5 (0.5) | 1.5 (0.7) |
| SF-36v2 PCS score, mean (SD) | 36.3 (8.9) | 36.9 (9.0) | 36.4 (8.6) | 34.7 (8.3) | 34.0 (9.1) | 37.4 (7.6) | 34.8 (7.3) | 33.4 (8.0) | 34.4 (8.4) | 30.8 (7.7) | 30.4 (7.2) | 31.2 (9.8) |
| SF-36v2 MCS score, mean (SD) | 39.1(11.3) | 37.2 (11.7) | 39.2 (11.4) | 39.9 (11.9) | 43.0 (12.1) | 42.9 (10.8) | 40.3 (11.8) | 40.9 (11.5) | 38.4 (12.2) | 42.2 (12.3) | 36.8 (12.4) | 39.1 (12.8) |
| FACIT-F total score, mean (SD) | 28.6 (11.7) | 26.3 (9.7) | 27.6 (10.6) | 26.8 (11.0) | 29.0 (11.3) | 31.2 (9.6) | 28.0 (11.0) | 27.2 (9.1) | 26.7 (10.3) | 23.8 (12.4) | 23.8 (11.0) | 24.6 (12.1) |
| CRP mg/L, mean (SD) | 11.7 (22.0) | 17.4 (32.4) | 13.7 (27.5) | 14.0 (24.8) | 10.6 (17.3) | 6.4 (8.5) | 9.0 (13.5) | 8.9 (18.3) | 11.7 (19.4) | 13.9 (16.6) | 13.2 (19.0) | 16.1 (22.3) |
| >2.87 mg/L,‡ n (%) | 26 (51.0) | 26 (53.1) | 27 (44.3) | 53 (60.9) | 48 (60.8) | 42 (58.3) | 38 (65.5) | 39 (60.0) | 40 (63.5) | 36 (85.7) | 35 (81.4) | 34 (85.0) |
| PASI, mean (SD) | 8.9 (9.1) | 10.6 (7.5) | 8.6 (8.7) | 8.5 (8.1) | 11.4 (8.9) | 9.2 (7.9) | 9.8 (7.2) | 8.8 (7.5) | 12.6 (12.4) | 9.2 (6.8) | 9.5 (6.5) | 12.0 (10.9) |
| BSA ≥3%, n (%) | 34 (66.7) | 30 (61.2) | 49 (80.3) | 58 (66.7) | 52 ( 65.8) | 52 (72.2) | 38 (65.5) | 44 (67.7) | 43 (68.3) | 32 (76.2) | 25 (58.1) | 24 (60.0) |
| SJC, mean (SD) | 9.8 (8.2) | 11.1 (8.4) | 8.9 (6.8) | 11.9 (9.0) | 12.6 (10.9) | 11.6 (9.0) | 12.2 (10.6) | 11.4 (7.2) | 11.4 (10.7) | 17.2 (13.1) | 14.5 (12.2) | 12.3 (8.1) |
| TJC, mean (SD) | 16.9 (9.8) | 22.6 (15.6) | 16.5 (12.7) | 21.5 (13.5) | 21.6 (15.4) | 19.8 (13.9) | 18.1 (10.7) | 22.7 (14.0) | 21.0 (15.2) | 26.4 (15.1) | 27.6 (18.8) | 25.2 (16.6) |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DSS,[§] mean (SD) [N1] | 10.0 (9.2) [24] | 8.7 (6.4) [26] | 7.8 (7.6) [32] | 7.4 (7.0) [51] | 10.2 (10.3) [47] | 9.5 (8.4) [35] | 6.7 (7.0) [31] | 7.0 (6.5) [28] | 8.0 (6.2) [29] | 11.9 (14.0) [21] | 9.5 (6.9) [24] | 7.7 (6.3) [25] |
| LEI,[¶] mean (SD) [N2] | 2.5 (1.4) [31] | 2.8 (1.6) [35] | 2.5 (1.1) [35] | 2.7 (1.5) [58] | 3.1 (1.6) [53] | 2.9 (1.6) [49] | 3.0 (1.6) [36] | 3.4 (1.7) [44] | 2.8 (1.7) [43] | 2.9 (1.6) [33] | 3.8 (1.8) [31] | 2.8 (1.5) [31] |
| Number of prior bDMARDs, n (%) | | | | | | | | | | | | |
| 0 | 20 (39.2) | 23 (46.9) | 27 (44.3) | 45 (51.7) | 38 (48.1) | 31 (43.1) | 27 (46.6) | 25 (38.5) | 27 (42.9) | 12 (28.6) | 14 (32.6) | 16 (40.0) |
| 1 | 20 (39.2) | 15 (30.6) | 20 (32.8) | 26 (29.9) | 26 (32.9) | 27 (37.5) | 15 (25.9) | 25 (38.5) | 19 (30.2) | 18 (42.9) | 18 (41.9) | 17 (42.5) |
| ≥2 | 11 (21.6) | 11 (22.4) | 14 (23.0) | 16 (18.4) | 15 (19.0) | 14 (19.4) | 16 (27.6) | 15 (23.1) | 17 (27.0) | 12 (28.6) | 11 (25.6) | 7 (17.5) |
| Corticosteroid use at baseline, n (%) | 14 (27.5) | 8 (16.3) | 13 (21.3) | 26 (29.9) | 7 (8.9) | 14 (19.4) | 16 (27.6) | 12 (18.5) | 12 (19.0) | 11 (26.2) | 10 (23.3) | 10 (25.0) |
| NSAID use at baseline, n (%) | 28 (54.9) | 26 (53.1) | 37 (60.7) | 54 (62.1) | 44 (55.7) | 37 (51.4) | 32 (55.2) | 31 (47.7) | 33 (52.4) | 28 (66.7) | 19 (44.2) | 23 (57.5) |
| Concomitant methotrexate, n (%) | 40 (78.4) | 33 (67.3) | 49 (80.3) | 72 (82.8) | 69 (87.3) | 61 (84.7) | 43 (74.1) | 46 (70.8) | 50 (79.4) | 31 (73.8) | 30 (69.8) | 32 (80.0) |
| Dose, mg/week, mean (SD) | 15.9 (3.6) | 14.1 (4.5) | 15.5 (4.2) | 15.3 (4.5) | 14.2 (4.3) | 15.0 (4.0) | 15.5 (4.3) | 15.1 (4.7) | 14.0 (4.6) | 15.6 (4.1) | 15.8 (4.2) | 14.5 (4.2) |
| ≤15 mg/week, n (%) | 25 (49.0) | 25 (51.0) | 29 (47.5) | 45 (51.7) | 52 (65.8) | 43 (59.7) | 26 (44.8) | 28 (43.1) | 37 (58.7) | 20 (47.6) | 17 (39.5) | 24 (60.0) |
| >15 mg/week, n (%) | 15 (29.4) | 8 (16.3) | 20 (32.8) | 27 (31.0) | 17 (21.5) | 18 (25.0) | 17 (29.3) | 18 (27.7) | 13 (20.6) | 11 (26.2) | 13 (30.2) | 8 (20.0) |

[*]Baseline waist circumference data were unavailable for 1 patient in the <25 kg/m$^2$ category and 3 patients in the ≥25–<30 kg/m$^2$ category.

[†]A patient was classified as having baseline metabolic syndrome if any three of the five metabolic syndrome risk factors at baseline are satisfied: hypertension (systolic

≥130 mm Hg and/or diastolic ≥85 mm Hg and/or concomitant anti-hypertensive medication), elevated triglycerides (≥150 mg/dL, 1.7 mmol/L and/or concomitant lipid-lowering medication), reduced high-density lipoprotein cholesterol (<40 mg/dL, 1.0 mmol/L in males; <50 mg/dL, 1.3 mmol/L in females), elevated waist circumference (population- and country-specific definitions) and elevated fasting glucose levels (≥100 mg/dL and/or concomitant anti-diabetic medication).[21]

‡Elevated level of CRP defined as >2.87 mg/L.

§Assessed only in patients with a baseline DSS >0.

¶Assessed only in patients with a baseline LEI >0.

bDMARD, biologic disease-modifying antirheumatic drug; BID, twice daily; BMI, body mass index; BSA, body surface area; CRP, C-reactive protein; DSS, Dactylitis Severity Score; FACIT-F, Functional Assessment of Chronic Illness Therapy-Fatigue; HAQ-DI, Health Assessment Questionnaire-Disability Index; LEI, Leeds Enthesitis Index; MCS, Mental Component Summary; N, number of patients randomised and treated; N1, number of patients with baseline DSS >0; N2, number of patients with baseline LEI >0; NSAID, non-steroidal anti-inflammatory drug; PASI, Psoriasis Area and Severity Index; PCS, Physical Component Summary; PsA, psoriatic arthritis; SD, standard deviation; SF-36v2, Short Form-36 Health Survey version 2; SJC, swollen joint count; TJC, tender joint count.

**Supplementary table 2** Multivariable analyses of the association between baseline covariates and efficacy outcomes: binary and continuous endpoints (pooled data from OPAL Broaden and OPAL Beyond)

| **Binary endpoints** | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Odds Ratio (95% CI)** | | | | | | | | | | | |
| | **ACR20*** | | **ACR50*** | | **ACR70*** | | **HAQ-DI†** | | **PASI75‡** | | **MDA** | |
| | **Tofacitinib 5 mg BID N=232** | **Tofacitinib 10 mg BID N=235** | **Tofacitinib 5 mg BID N=232** | **Tofacitinib 10 mg BID N=235** | **Tofacitinib 5 mg BID N=232** | **Tofacitinib 10 mg BID N=235** | **Tofacitinib 5 mg BID N=207** | **Tofacitinib 10 mg BID N=214** | **Tofacitinib 5 mg BID N=159** | **Tofacitinib 10 mg BID N=150** | **Tofacitinib 5 mg BID N=232** | **Tofacitinib 10 mg BID N=235** |
| BMI (categorical) | | | | | | | | | | | | |
| <25 kg/m$^2$ vs ≥35 kg/m$^2$ | - | - | 3.82 (1.18, 12.37) | - | 17.60 (2.68, 115.73) | - | - | - | - | - | 3.20 (0.91, 11.23) | - |
| ≥25–<30 kg/m$^2$ vs ≥35 kg/m$^2$ | - | - | 3.79 (1.30, 11.07) | - | 6.78 (1.37, 33.48) | - | - | - | - | - | 4.98 (1.51, 16.45) | - |
| ≥30–<35 kg/m$^2$ vs ≥35 kg/m$^2$ | - | - | 4.92 (1.68, 14.42) | - | 5.78 (1.46, 22.94) | - | - | - | - | - | 4.75 (1.44, 15.71) | - |
| BMI (continuous) | - | - | - | - | 0.83 (0.74, 0.94) | - | - | - | - | - | 0.87 (0.79, 0.95) | - |
| Age, years | - | - | - | - | - | 0.94 (0.91, 0.98) | 0.97 (0.95, 1.00) | - | - | - | - | 0.97 (0.94, 1.00) |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Gender (male vs female) | - | - | - | - | - | - | 2.17 (1.14, 4.13) | 2.14 (1.10, 4.17) | 0.39 (0.19, 0.82) | - | - | - |
| Race | | | | | | | | | | | | |
| White vs others | - | - | - | - | - | - | - | - | - | - | - | - |
| Asian vs others | - | - | - | - | - | - | - | - | - | - | - | - |
| Smoking status | | | | | | | | | | | | |
| Smoker vs never smoked | 0.66 (0.35, 1.26) | - | 0.45 (0.22, 0.92) | - | 0.23 (0.09, 0.59) | 0.35 (0.13, 0.94) | - | - | - | - | - | - |
| Ex-smoker vs never smoked | 0.33 (0.14, 0.80) | - | 0.33 (0.12, 0.93) | - | 0.20 (0.05, 0.77) | 0.14 (0.03, 0.62) | - | - | - | - | - | - |
| Region | | | | | | | | | | | | |
| US/CN vs ROW | 0.32 (0.11, 0.89) | - | 0.34 (0.13, 0.92) | 0.48 (0.14, 1.64) | 0.19 (0.06, 0.62) | 0.05 (0.01, 0.22) | 0.27 (0.08, 0.93) | 0.76 (0.21, 2.83) | - | - | 0.33 (0.12, 0.90) | - |
| W EUR/AUS vs ROW | 0.17 (0.06, 0.47) | - | 0.15 (0.05, 0.43) | 0.22 (0.07, 0.76) | 0.07 (0.02, 0.26) | 0.09 (0.02, 0.32) | 0.15 (0.04, 0.53) | 0.26 (0.07, 0.96) | - | - | 0.10 (0.03, 0.31) | - |
| E EUR/RUS vs ROW | 0.34 (0.13, 0.88) | - | 0.20 (0.08, 0.51) | 0.23 (0.07, 0.74) | 0.16 (0.05, 0.50) | 0.08 (0.02, 0.24) | 0.17 (0.05, 0.56) | 0.35 (0.10, 1.19) | - | - | 0.17 (0.06, 0.46) | - |
| Weight, kg | | | | | | | | | | | | |
| <60 vs >90 | - | - | - | - | 0.05 (0.00, 0.64) | - | - | 0.79 (0.19, 3.19) | - | - | - | - |
| ≥60 vs >90 | - | - | - | - | 0.32 (0.11, 0.94) | - | - | 2.78 (1.43, 5.43) | - | - | - | - |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PsA duration, years | - | - | - | - | | - | - | | - | - | - | - |
| CRP | 1.02 (1.00, 1.03) | 1.02 (1.00, 1.03) | - | - | 1.02 (1.00, 1.04) | - | - | 1.03 (1.01, 1.05) | - | - | - | - |
| Metabolic syndrome (yes vs no) | - | - | - | - | - | - | - | - | - | - | - | - |
| Number of prior TNFi use | - | - | - | - | - | - | - | - | - | - | - | - |
| Number of prior bDMARD use | - | - | - | - | - | - | - | - | - | - | - | - |
| 0 bDMARD vs ≥2 bDMARD | - | - | - | 3.70 (1.43, 9.60) | - | - | - | 4.13 (1.61, 10.57) | 9.88 (2.09, 46.63) | - | - | - |
| 1 bDMARD vs ≥2 bDMARD | - | - | - | 2.65 (1.04, 6.75) | - | - | - | 2.27 (0.94, 5.50) | 5.65 (1.14, 28.07 | - | - | - |
| Corticosteroid use (yes vs no) | - | - | - | - | - | - | - | - | - | - | - | 2.71 (1.15, 6.38) |
| HAQ-DI | - | - | - | - | - | - | 2.63 (1.46, 4.75) | 1.94 (1.03, 3.65) | - | - | - | - |
| Pain (VAS) | - | - | - | 1.02 (1.00, 1.04) | - | 1.03 (1.01, 1.05) | - | - | - | - | - | - |
| SF-36v2 PCS | - | - | - | - | - | - | - | - | - | - | - | 1.08 (1.04, 1.12) |
| SF-36v2 MCS | - | - | - | - | - | - | - | - | - | - | - | 1.05 (1.02, 1.08) |
| FACIT-F total score | | 1.05 (1.03, 1.08) | | 1.05 (1.02, 1.09) | - | - | - | - | - | - | - | - |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LEI | - | - | - | 0.39 (0.20, 0.74) | - | - | - | - | - | - | - | - |
| DSS | - | - | - | - | 0.42 (0.18, 0.98) | - | - | - | 0.36 (0.17, 0.77) | - | 0.32 (0.16, 0.64) | - |

**Continuous endpoints**

| | **Estimate (95% CI)** | | | | | |
|---|---|---|---|---|---|---|
| | **ΔHAQ-DI** | | **ΔLEI** | | **ΔDSS** | |
| | **Tofacitinib 5 mg BID N=222** | **Tofacitinib 10 mg BID N=222** | **Tofacitinib 5 mg BID N=147** | **Tofacitinib 10 mg BID N=149** | **Tofacitinib 5 mg BID N=121** | **Tofacitinib 10 mg BID N=118** |
| BMI (categorical) | - | - | - | - | - | - |
| <25 kg/m$^2$ vs ≥35 kg/m$^2$ | - | - | - | - | - | - |
| ≥25–<30 kg/m$^2$ vs ≥35 kg/m$^2$ | - | - | - | - | - | - |
| ≥30–<35 kg/m$^2$ vs ≥35 kg/m$^2$ | - | - | - | - | - | - |
| BMI (continuous) | 0.0105 (0.0000, 0.0211) | - | - | - | - | - |
| Age, years | - | 0.0072 (0.0015, 0.0129) | - | - | - | 0.1057 (0.0027, 0.2086) |

| | | | | | | |
|---|---|---|---|---|---|---|
| Gender (male vs female) | - | - | - | - | - | - |
| Race | | | | | | |
| White vs others | - | 0.8042 (0.3270, 1.2813) | - | - | - | - |
| Asian vs others | - | 0.6883 (0.1252, 1.2514) | - | - | - | - |
| Smoking status | | | | | | |
| Smoker vs never smoked | - | - | - | - | - | - |
| Ex-smoker vs never smoked | - | - | - | - | - | - |
| Region | | | | | | |
| US/CN vs ROW | 0.2914 (0.0685, 0.5142) | - | - | - | - | - |
| W EUR/AUS vs ROW | 0.4106 (0.1841, 0.6371) | - | - | - | - | - |
| E EUR/RUS vs ROW | 0.3989 (0.1907, 0.6071) | - | - | - | - | - |
| Weight, kg | | | | | | |
| <60 vs >90 | - | - | - | - | - | - |
| ≥60 vs >90 | - | - | - | - | - | - |

| | | | | | | |
|---|---|---|---|---|---|---|
| PsA duration, years | - | -0.0128 (-0.0231, -0.0024) | - | - | | -0.2841 (-0.4747, -0.0936) |
| CRP | - | -0.0034 (-0.0063, -0.0005) | - | - | - | - |
| Metabolic syndrome (yes vs no) | - | - | - | - | - | - |
| Number of prior TNFi use | - | - | - | - | - | - |
| Number of prior bDMARD use | - | | - | - | - | - |
| 0 bDMARD vs ≥2 bDMARD | - | -0.2539 (-0.4262, -0.0816) | - | - | - | - |
| 1 bDMARD vs ≥2 bDMARD | - | -0.2025 (-0.3726, -0.0324) | - | - | - | - |
| Corticosteroid use (yes vs no) | - | - | - | - | - | -4.2627 (-7.5828, -0.9426) |
| HAQ-DI | -0.3813 (-0.4794, -0.2832) | -0.2973 (-0.4059, -0.1888) | - | - | - | - |
| Pain (VAS) | - | - | - | - | - | - |
| SF-36v2 PCS | - | - | - | -0.0358 (-0.0692, -0.0024) | - | - |
| SF-36v2 MCS | - | - | - | - | - | - |
| FACIT-F total score | - | - | - | - | - | - |

| | | | | | | |
|---|---|---|---|---|---|---|
| LEI | - | - | - | - | - | - |
| DSS | - | - | - | - | - | - |

N indicates the total number of patients included in the analyses and may vary for each outcome based on the number of patients assessed.

Categorical BMI and continuous BMI were not included in the same model.

The final model includes all selected covariates based on a backward selection method using a 0.05 level of significance. Odds ratios (with 95% CI) are presented for covariates included in the final model.

*ACR20/50/70 response rates were defined as the proportions of patients achieving a ≥20/50/70% improvement from baseline in tender and swollen joint counts, and ≥20/50/70% improvement from baseline in three of the five remaining ACR core domains.

†HAQ-DI response rate was defined as the proportion of patients achieving a ≥0.35-point decrease from baseline HAQ-DI, which is considered to be the minimum clinically important difference.

‡PASI75 response rate was defined as the proportion of patients achieving ≥75% reduction from baseline PASI, assessed only in patients with baseline BSA ≥3% and baseline PASI >0.

Δ, change from baseline; ACR20/50/70, American College of Rheumatology ≥20/50/70% response criteria; bDMARD, biologic disease-modifying antirheumatic drug; BID, twice daily; BMI, body mass index; BSA, body surface area; CI, confidence interval; CRP, C-reactive protein; DSS, Dactylitis Severity Score; E EUR/RUS=Eastern Europe/Russia; FACIT-F, Functional Assessment of Chronic Illness Therapy-Fatigue; HAQ-DI, Health Assessment Questionnaire-Disability Index; LEI, Leeds Enthesitis Index; MCS, Mental Component Summary; MDA, Minimal Disease Activity; PASI75, ≥75% Psoriasis Area and Severity Index; PCS, Physical Component Summary; PsA, psoriatic arthritis; ROW, rest of world; SF-36v2, Short Form-36 Health Survey version 2; TNFi, tumour necrosis factor inhibitor; VAS, visual analogue scale; vs, versus; W EUR/AUS, Western Europe/Australia; US/CN, United States/Canada.

**Supplementary table 3** Most common AEs* up to Month 3 by baseline BMI category (pooled data from OPAL Broaden and OPAL Beyond)

| | Baseline BMI category | | | |
|---|---|---|---|---|
| | **<25 kg/m$^2$ (Underweight/Normal) N=161 (22.7%)** | **≥25–<30 kg/m$^2$ (Overweight) N=238 (33.5%)** | **≥30–<35 kg/m$^2$ (Class 1 Obesity) N=186 (26.2%)** | **≥35 kg/m$^2$ (Class 2 & 3 Obesity) N=125 (17.6%)** |
| Tofacitinib 5 mg BID, n | 51 | 87 | 58 | 42 |
| Tofacitinib 10 mg BID, n | 49 | 79 | 65 | 43 |
| Placebo, n | 61 | 72 | 63 | 40 |
| **AE, n (%)** | | | | |
| **Headache** | | | | |
| Tofacitinib 5 mg BID | 1 (2.0) | 5 (5.7) | 1 (1.7) | 2 (4.8) |
| Tofacitinib 10 mg BID | 3 (6.1) | 7 (8.9) | 5 (7.7) | 5 (11.6) |
| Placebo | 8 (13.1) | 1 (1.4) | 1 (1.6) | 1 (2.5) |
| **URTI** | | | | |
| Tofacitinib 5 mg BID | 3 (5.9) | 2 (2.3) | 5 (8.6) | 2 (4.8) |
| Tofacitinib 10 mg BID | 1 (2.0) | 5 (6.3) | 2 (3.1) | 3 (7.0) |
| Placebo | 4 (6.6) | 3 (4.2) | 3 (4.8) | 1 (2.5) |

| | | | | |
|---|---|---|---|---|
| **Nasopharyngitis** | | | | |
| Tofacitinib 5 mg BID | 3 (5.9) | 6 (6.9) | 4 (6.9) | 1 (2.4) |
| Tofacitinib 10 mg BID | 4 (8.2) | 4 (5.1) | 3 (4.6) | 2 (4.7) |
| Placebo | 1 (1.6) | 1 (1.4) | 3 (4.8) | 1 (2.5) |
| **Dizziness** | | | | |
| Tofacitinib 5 mg BID | 1 (2.0) | 2 (2.3) | 0 | 3 (7.1) |
| Tofacitinib 10 mg BID | 0 | 0 | 0 | 1 (2.3) |
| Placebo | 2 (3.3) | 0 | 0 | 1 (2.5) |
| **Diarrhoea** | | | | |
| Tofacitinib 5 mg BID | 1 (2.0) | 3 (3.4) | 3 (5.2) | 1 (2.4) |
| Tofacitinib 10 mg BID | 1 (2.0) | 2 (2.5) | 4 (6.2) | 2 (4.7) |
| Placebo | 0 | 0 | 0 | 1 (2.5) |
| **Constipation** | | | | |
| Tofacitinib 5 mg BID | 0 | 0 | 0 | 3 (7.1) |
| Tofacitinib 10 mg BID | 0 | 0 | 0 | 0 |
| Placebo | 2 (3.3) | 0 | 0 | 0 |
| **Bronchitis** | | | | |

| | | | | |
|---|---|---|---|---|
| Tofacitinib 5 mg BID | 1 (2.0) | 2 (2.3) | 0 | 3 (7.1) |
| Tofacitinib 10 mg BID | 1 (2.0) | 0 | 2 (3.1) | 1 (2.3) |
| Placebo | 0 | 0 | 0 | 0 |
| **Prostatitis** | | | | |
| Tofacitinib 5 mg BID | 0 | 0 | 0 | 0 |
| Tofacitinib 10 mg BID | 1 (5.6) | 0 | 0 | 0 |
| Placebo | 0 | 0 | 0 | 0 |
| **Fall** | | | | |
| Tofacitinib 5 mg BID | 0 | 0 | 0 | 0 |
| Tofacitinib 10 mg BID | 0 | 0 | 0 | 1 (2.3) |
| Placebo | 0 | 0 | 0 | 2 (5.0) |
| **Cough** | | | | |
| Tofacitinib 5 mg BID | 0 | 2 (2.3) | 0 | 0 |
| Tofacitinib 10 mg BID | 0 | 0 | 0 | 1 (2.3) |
| Placebo | 0 | 1 (1.4) | 0 | 2 (5.0) |

| | | | | |
|---|---|---|---|---|
| **Arthralgia** | | | | |
| Tofacitinib 5 mg BID | 0 | 0 | 1 (1.7) | 0 |
| Tofacitinib 10 mg BID | 0 | 0 | 0 | 0 |
| Placebo | 0 | 0 | 2 (3.2) | 2 (5.0) |
| **Dry skin** | | | | |
| Tofacitinib 5 mg BID | 0 | 0 | 0 | 0 |
| Tofacitinib 10 mg BID | 0 | 0 | 0 | 0 |
| Placebo | 0 | 0 | 0 | 2 (5.0) |

N indicates the number of patients evaluable for AEs; n indicates the number of patients with AEs.

All patients received a stable dose of one csDMARD throughout each study.

*AEs occurring in ≥5% of patients in any treatment arm of each individual BMI category.

AE, adverse event; BID, twice daily; BMI, body mass index; csDMARD, conventional synthetic disease-modifying antirheumatic drug; URTI, upper respiratory tract infection.