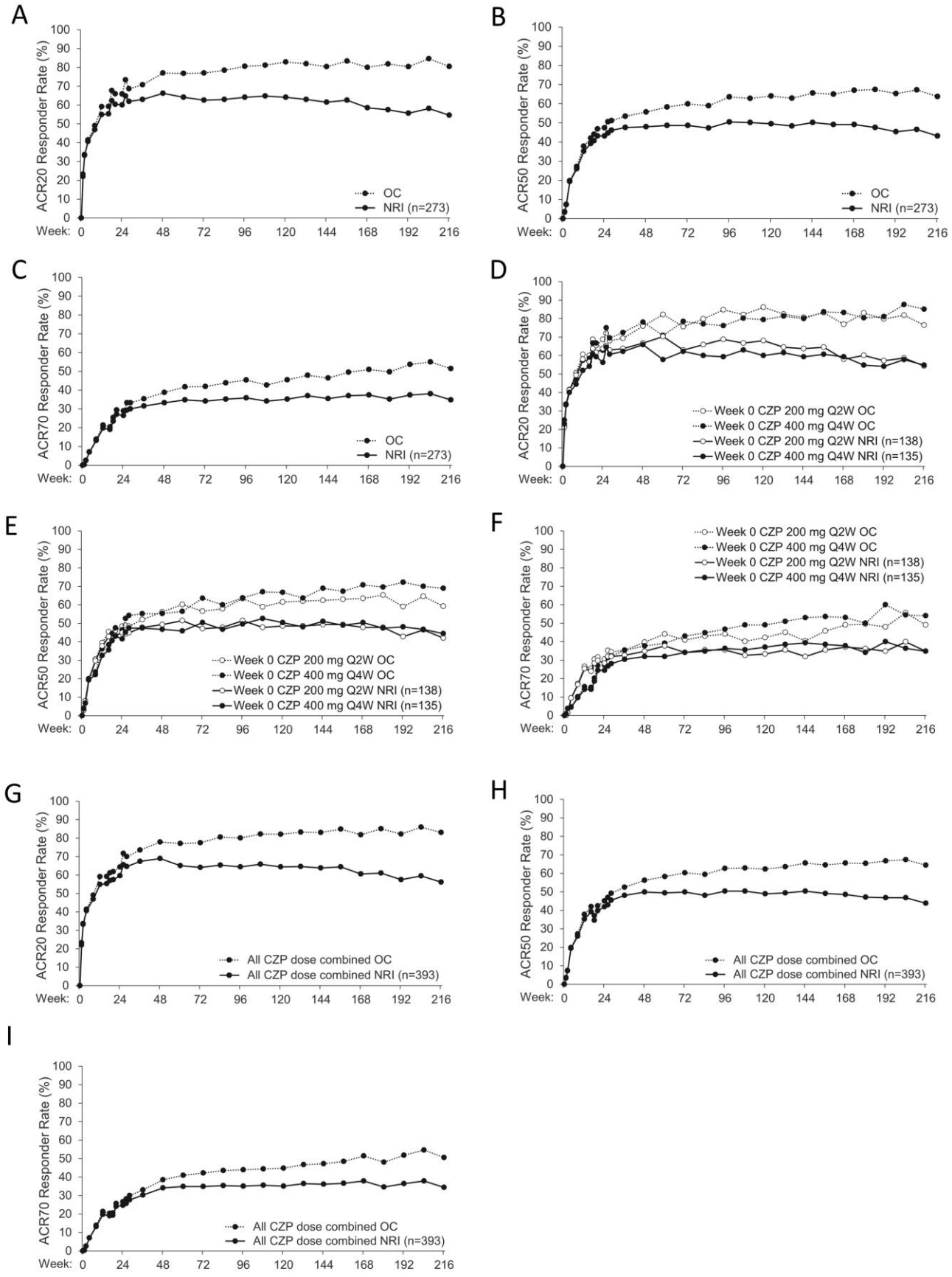
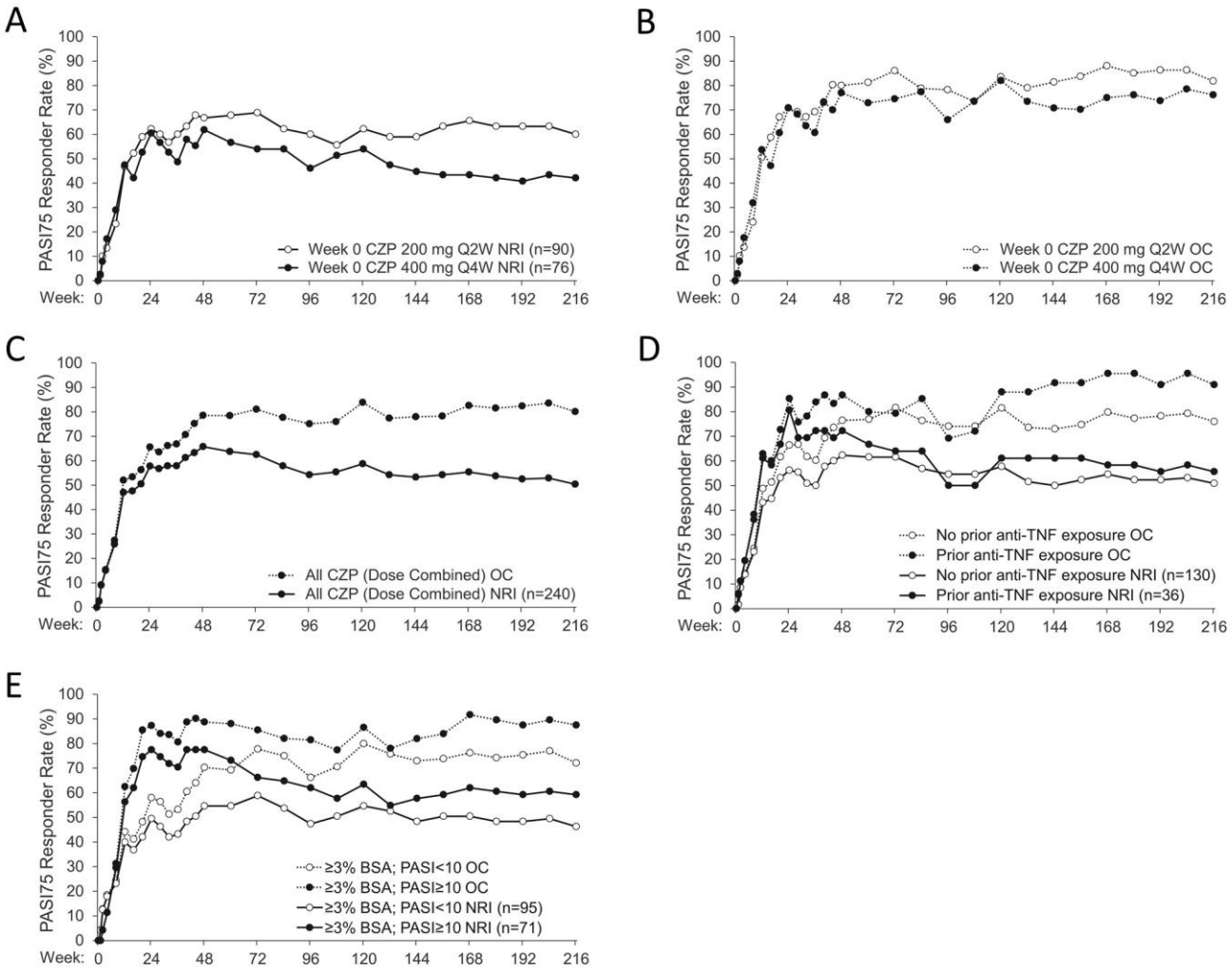
**Supplementary Figure 1. ACR responder rates over 4 years in patients treated with CZP from Week 0, dose combined (A–C) and by dose (D–F), and in all patients treated with CZP in RAPID-PsA, dose combined (G–I)**



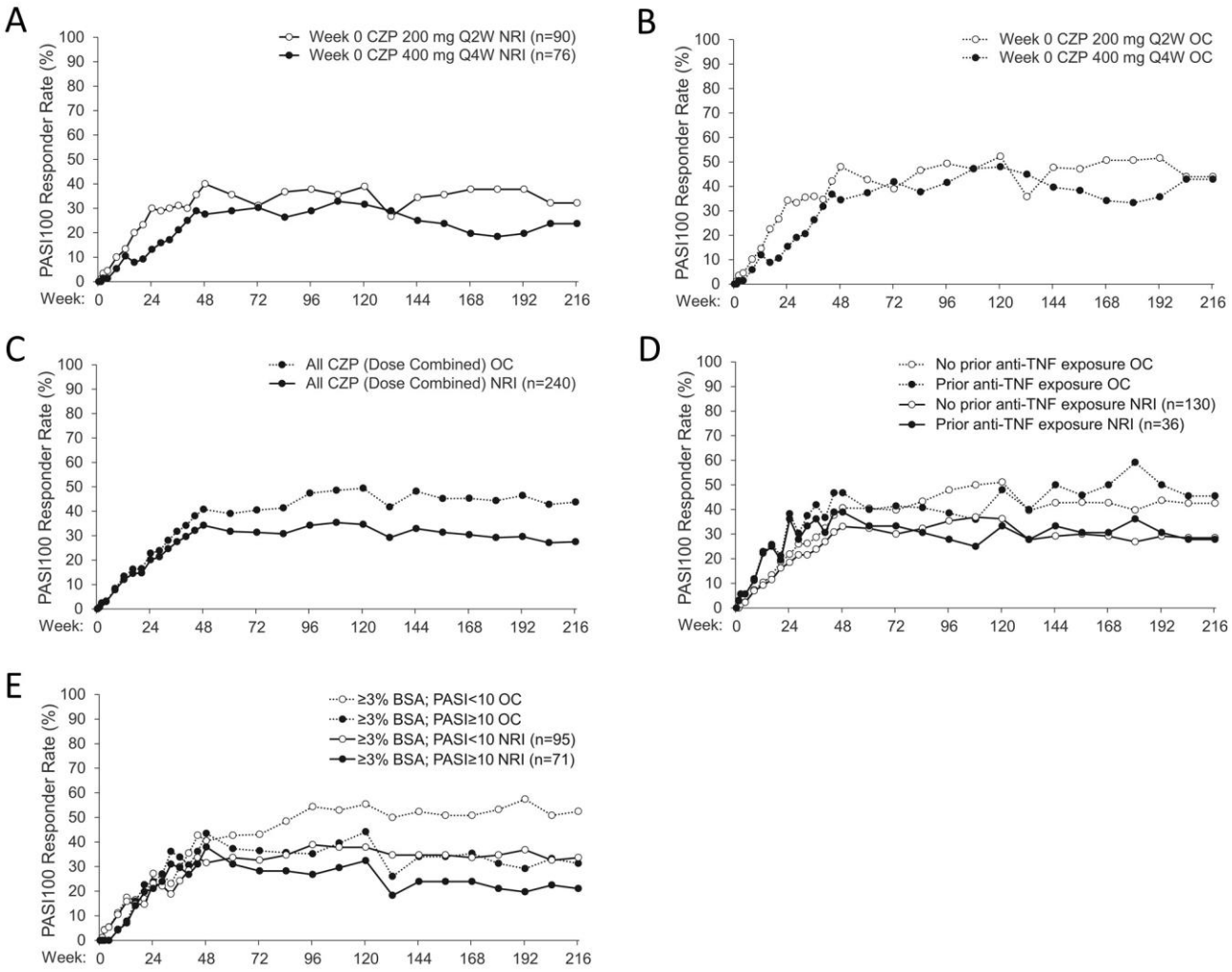

Data are shown for the Randomized Set. 'All CZP' refers to all patients treated with CZP in RAPID-PsA (patients randomized to CZP at Week 0, and patients re-randomized from placebo to CZP at Week 16 or Week 24, combined). ACR20/50/70: American College of Rheumatology score 20/50/70; NRI: non-responder imputation; OC: observed case; Q2W: every 2 weeks; Q4W: every 4 weeks.

**Supplementary Figure 2. PASI75 responder rates over 4 years' CZP treatment in (A–B) patients treated with CZP from Week 0 stratified by dose regimen; (C) patients treated with CZP at any stage during RAPID-PsA on either dose (dose combined); (D) patients treated with CZP from Week 0 stratified by prior anti-TNF exposure; (E) patients with more severe skin involvement at baseline (PASI ≥10 vs PASI<10)**




Data are shown for the Randomized Set. Psoriasis Severity Index (PASI) responder rates are given for patients with baseline skin involvement (≥3% body surface area [BSA] affected by psoriasis). 'All CZP' refers to all patients treated with CZP in RAPID-PsA (patients randomized to CZP at Week 0, and patients re-randomized from placebo to CZP at Week 16 or Week 24, combined). NRI: Non-responder imputation; OC: observed case; PASI: Psoriasis Severity Index; PASI75: 75% reduction in PASI; Q2W: every 2 weeks; Q4W: every 4 weeks.

**Supplementary Figure 3. PASI100 responder rates over 4 years' CZP treatment in (A–B) patients treated with CZP from Week 0 stratified by dose regimen; (C) patients treated with CZP at any stage during RAPID-PsA on either dose (dose combined); (D) patients treated with CZP from Week 0 stratified by prior anti-TNF exposure; (E) patients with more severe skin involvement at baseline (PASI ≥10 vs PASI<10)**




Data are shown for the Randomized Set. Psoriasis Severity Index (PASI) responder rates are given for patients with baseline skin involvement (≥3% body surface area [BSA] affected by psoriasis). 'All CZP' refers to all patients treated with CZP in RAPID-PsA (patients randomized to CZP at Week 0, and patients re-randomized from placebo to CZP at Week 16 or Week 24, combined). NRI: Non-responder imputation; OC: observed case; PASI: Psoriasis Severity Index; PASI100: 100% reduction in PASI; Q2W: every 2 weeks; Q4W: every 4 weeks.

**Supplementary Table 1. Baseline demographics and disease severity characteristics for patients randomized to CZP treatment at Week 0 or re-randomized to CZP from placebo at Week 16 and Week 24 of the RAPID-PsA study**

| | CZP 200 mg Q2W | | | CZP 400 mg Q4W | | |
|---|---|---|---|---|---|---|
| | Week 0 CZP 200 mg Q2W (N=138) | PBO → CZP 200 mg Q2W Week 16 (N=30) | PBO → CZP 200 mg Q2W Week 24 (N=30) | Week 0 CZP 400 mg Q4W (N=135) | PBO → CZP 400 mg Q4W Week 16 (N=29) | PBO → CZP 400 mg Q4W Week 24 (N=31) |
| **Demographic characteristics, mean ± SD unless otherwise indicated** | | | | | | |
| Age, years | 48.2 ± 12.3 | 48.0 ± 11.6 | 47.8 ± 11.4 | 47.1 ± 10.8 | 49.3 ± 10.0 | 45.0 ± 10.7 |
| Sex, % female | 53.6 | 56.7 | 63.3 | 54.1 | 65.5 | 51.6 |
| Race, % white | 97.8 | 100 | 100 | 98.5 | 96.6 | 93.5 |
| Weight, kg | 85.8 ± 17.7 | 82.8 ± 18.7 | 81.1 ± 16.5 | 84.8 ± 18.7 | 78.9 ± 21.5 | 87.3 ± 23.4 |
| BMI, kg/m2 | 30.5 ± 6.2 | 28.9 ± 5.5 | 28.5 ± 4.1 | 29.6 ± 6.6 | 28.1 ± 7.0 | 30.9 ± 9.3 |
| **Disease characteristics, mean ± SD unless otherwise indicated** | | | | | | |
| Time from psoriatic arthritis diagnosis [a], years | 9.6 ± 8.5 | 7.7 ± 7.3 | 7.3 ± 7.5 | 8.1 ± 8.3 | 10.6 ± 10.3 | 6.3 ± 5.7 |
| CRP (mg/L) [b], median (min – max) | 7.0 (0.3-238.0) | 6.5 (0.2-100.0) | 8.7 (0.3-32.3) | 9.1 (0.1-87.0) | 10.3 (1.1-80.7) | 10.3 (0.7-60.0) |
| ESR (mm/h), median (min – max) | 35.0 (5.0-125.0) | 32.5 (15-91) | 32.0 (20-95) | 33.0 (4.0-120.0) | 35.0 (10-92) | 31.0 (6-70) |
| Tender joint count (0-68 joints) | 21.5 ± 15.3 | 19.4 ± 15.2 | 17.0 ± 13.8 | 19.6 ± 14.8 | 18.4 ± 11.2 | 21.2 ± 16.0 |
| Swollen joint count (0-66 joints) | 11.0 ± 8.8 | 10.0 ± 7.9 | 9.7 ± 7.0 | 10.5 ± 7.5 | 10.0 ± 6.2 | 10.0 ± 7.5 |
| HAQ-DI (range 0-3) | 1.3 ± 0.7 | 1.3 ± 0.6 | 1.2 ± 0.6 | 1.3 ± 0.6 | 1.5 ± 0.6 | 1.1 ± 0.7 |
| Modified total Sharp score | 15.4 ± 27.9 | 25.3 ± 50.2 | 18.5 ± 24.8 | 20.9 ± 45.3 | 37.0 ± 79.2 | 15.5 ± 30.3 |
| Erosion score | 9.4 ± 16.2 | 15.7 ± 29.6 | 10.7 ± 14.0 | 12.9 ± 25.3 | 21.7 ± 43.3 | 9.7 ± 17.4 |
| Joint space narrowing score | 6.0 ± 12.4 | 9.7 ± 20.9 | 7.8 ± 12.0 | 8.0 ± 20.5 | 15.2 ± 36.2 | 5.7 ± 13.5 |
| Psoriasis BSA ≥3%, n (%) | 90 (65.2) | 18 (60.0) | 20 (66.7) | 76 (56.3) | 20 (69.0) | 16 (51.6) |
| PASI [c], median (min – max) | 7.0 (0.6-72.0) | 9.1 (0.5-20.1) | 4.6 (0.3-20.4) | 8.1 (0.6-51.8) | 7.7 (0.6-37.9) | 6.0 (1.2-36.9) |
| **Prior use of synthetic DMARDs, n (%)** | | | | | | |
| 1 | 61 (44.2) | 17 (56.7) | 18 (60.0) | 68 (50.4) | 11 (37.9) | 17 (54.8) |
| ≥ 2 | 74 (53.6) | 12 (40.0) | 12 (40.0) | 64 (47.4) | 17 (58.6) | 14 (45.2) |
| Concomitant Use of NSAIDs to Week 96 | 106 (76.8) | 25 (83.3) | 20 (66.7) | 105 (77.8) | 22 (75.9) | 26 (83.9) |
| Prior anti-TNF exposure | 31 (22.5) | 9 (30.0) | 3 (10.0) | 23 (17.0) | 7 (24.1) | 2 (6.5) |
| Concomitant use of MTX to Week 96 | 90 (65.2) | 18 (60.0) | 20 (66.7) | 87 (64.4) | 19 (65.5) | 20 (64.5) |

Data are shown for the Randomized Set. BSA: body surface area affected by psoriasis; CRP: C-reactive protein; ESR: erythrocyte sedimentation rate; HAQ-DI: Health Assessment Questionnaire Disability Index; MTX: methotrexate; NSAID: non-steroidal anti-inflammatory drug; PASI: Psoriasis Area and Severity Index; PBO: placebo. [a] From the start date of primary disease; [b] Normal range of CRP < 8.0 mg/L; [c] PASI scores reported for patients with psoriasis BSA ≥3% at baseline.

This table was originally published in Mease PJ *et al* "Effect of certolizumab pegol over 96 weeks in patients with psoriatic arthritis with and without prior antitumour necrosis factor exposure" *RMD Open* 2015;1(1):e000119.

## Supplementary Table 2. Clinical disease activity and patient-reported outcomes in patients randomized to CZP treatment at Week 0, by dose (with imputation for missing values)

| | Week 0 CZP 200 mg Q2W (N=138) and Week 0 CZP 400 mg Q4W (N=135) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Week 0 | | Week 24 | | Week 48 | | Week 216 | |
| | 200 mg | 400 mg | 200 mg | 400 mg | 200 mg | 400 mg | 200 mg | 400 mg |
| **Clinical outcomes: % patients achieving outcome, unless otherwise indicated** | | | | | | | | |
| ACR20 | – | – | 63.8 | 56.3 | 66.7 | 65.9 | 54.3 | 54.8 |
| *naïve* [a] | – | – | 64.5 | 56.3 | 69.2 | 66.1 | 53.3 | 57.1 |
| *experienced* [b] | – | – | 61.3 | 56.5 | 58.1 | 65.2 | 58.1 | 43.5 |
| ACR50 | – | – | 44.9 | 41.5 | 49.3 | 46.7 | 42.0 | 44.4 |
| *naïve* [a] | – | – | 45.8 | 40.2 | 50.5 | 45.5 | 41.1 | 46.4 |
| *experienced* [b] | – | – | 41.9 | 47.8 | 45.2 | 52.2 | 45.2 | 34.8 |
| ACR70 | – | – | 28.3 | 24.4 | 34.8 | 31.9 | 34.8 | 34.8 |
| *naïve* [a] | – | – | 29.0 | 24.1 | 35.5 | 31.3 | 35.5 | 36.6 |
| *experienced* [b] | – | – | 25.8 | 26.1 | 32.3 | 34.8 | 32.3 | 26.1 |
| CFB DAPSA, mean (SD) | 46.0 (23.2) | 43.5 (22.5) | -27.8 (23.1) | -23.9 (18.6) | -29.9 (22.4) | -25.7 (20.5) | -30.1 (25.1) | -28.9 (21.8) |
| DAPSA LDA | 1.4 | 1.5 | 31.9 | 24.4 | 34.1 | 35.6 | 34.8 | 25.9 |
| DAPSA remission | – | – | 23.2 | 23.7 | 26.8 | 24.4 | 30.4 | 41.5 |
| MDA | – | – | 34.8 | 34.8 | 40.6 | 37.8 | 37.7 | 40.7 |
| VLDA | – | – | 15.2 | 11.9 | 14.5 | 19.3 | 19.6 | 19.3 |
| PASI75 [c] | – | – | 62.2 | 60.5 | 66.7 | 61.8 | 60.0 | 42.1 |
| PASI90 [c] | – | – | 46.7 | 35.5 | 48.9 | 42.1 | 44.4 | 35.5 |
| PASI100 [c] | – | – | 30.0 | 13.2 | 40.0 | 27.6 | 32.2 | 23.7 |
| CFB % BSA [c], mean (SD) | 24.7 (23.6) | 23.5 (21.1) | -17.9 (21.1) | -13.9 (17.2) | -19.1 (22.9) | -15.5 (17.4) | -20.1 (21.8) | -16.2 (18.5) |
| BSA ≤1% [c] | – | – | 42.2 | 27.6 | 55.6 | 44.7 | 54.4 | 56.6 |
| CFB Tender joint count, mean (SD) | 21.5 (15.3) | 19.5 (14.8) | -13.0 (14.6) | -10.2 (12.6) | -13.6 (14.8) | -11.1 (13.6) | -13.9 (15.7) | -13.2 (13.9) |
| CFB Swollen joint count, mean (SD) | 11.0 (8.8) | 10.5 (7.5) | -7.9 (8.7) | -7.4 (6.5) | -8.9 (8.3) | -8.2 (6.8) | -9.1 (9.1) | -8.4 (6.8) |
| CFB mNAPSI [d], mean (SD) | 3.1 (1.8) | 3.4 (2.2) | -1.6 (2.0) | -2.0 (2.3) | -1.9 (2.3) | -2.4 (2.3) | -2.4 (2.2) | -2.8 (2.2) |
| mNAPSI=0 [d] | – | – | 32.6 | 40.0 | 48.9 | 52.4 | 60.9 | 67.6 |
| CFB LEI [e], mean (SD) | 3.1 (1.7) | 2.9 (1.6) | -2.0 (1.8) | -1.8 (1.9) | -2.1 (1.8) | -2.0 (1.8) | -2.0 (1.8) | -2.3 (1.9) |
| LEI=0 [e] | – | – | 64.8 | 63.1 | 68.2 | 67.9 | 69.3 | 72.6 |
| CFB LDI [f], mean (SD) | 45.3 (36.0) | 56.8 (75.9) | -40.7 (34.6) | -53.5 (69.1) | -39.7 (33.1) | -53.9 (69.1) | -41.8 (34.5) | -52.8 (69.4) |
| LDI=0 [f] | – | – | 74.3 | 65.8 | 82.9 | 78.9 | 88.6 | 73.7 |
| **Patient-reported outcomes: mean (SD)** | | | | | | | | |
| CFB HAQ-DI | 1.33 (0.66) | 1.29 (0.60) | -0.52 (0.66) | -0.43 (0.54) | -0.56 (0.67) | -0.49 (0.55) | -0.50 (0.71) | -0.49 (0.58) |
| CFB Pain | 59.7 (20.7) | 61.1 (18.5) | -28.6 (28.8) | -28.4 (25.5) | -31.6 (29.4) | -29.5 (27.2) | -30.5 (30.1) | -33.8 (29.3) |
| CFB Fatigue | 6.3 (2.0) | 6.2 (2.1) | -2.2 (2.6) | -1.9 (2.3) | -2.3 (2.6) | -2.0 (2.4) | -2.3 (2.8) | -2.3 (2.6) |
| CFB PsAQoL | 11.1 (5.5) | 11.3 (5.6) | -4.4 (5.1) | -3.3 (5.1) | -4.8 (5.3) | -3.5 (5.0) | -4.6 (5.8) | -4.4 (5.5) |
| CFB SF-36 PCS | 33.1 (7.7) | 33.2 (7.5) | 8.4 (10.1) | 7.6 (8.1) | 8.6 (9.6) | 8.4 (8.8) | 8.7 (10.7) | 8.8 (9.7) |
| CFB SF-36 MCS | 40.7 (11.2) | 41.9 (12.5) | 5.5 (10.2) | 3.5 (9.6) | 4.8 (10.7) | 3.2 (9.4) | 3.9 (12.0) | 3.3 (10.6) |

Data are shown for the Randomized Set. Data were imputed using NRI for missing categorical data and LOCF for missing continuous measures. ACR20/50/70: 20%, 50%, and 70% or greater improvement in ACR score; BSA: body surface area affected by psoriasis; CFB: change from baseline; DAPSA: Disease Activity Index for Psoriatic Arthritis; HAQ-DI: Health Assessment Questionnaire Disability Index; LDA: Low Disease Activity; LDI: Leeds Dactylitis Index; LEI: Leeds Enthesitis Index; MDA: 5/7 minimal disease activity criteria; mNAPSI: modified Nail Psoriasis Severity Index; PASI75/90/100: 75%, 90%, or 100% improvement in the Psoriasis Area and Severity Index; PsAQoL: psoriatic arthritis quality of life; SF-36 PCS: Short Form (36) health survey, physical component summary; SF-36 MCS: Short Form (36) health survey – mental component summary. [a] anti-TNF naïve patients: 200 mg Q2W (n=107), 400 mg Q4W (n=112); [b] anti-TNF experienced patients: 200 mg Q2W (n=31), 400 mg Q4W (n=23); [c] patients with baseline BSA≥3%: 200 mg Q2W (n=90), 400 mg Q4W (n=76); [d] patients with mNAPSI >0 at BL: 200 mg Q2W (n=92), 400 mg Q4W (n=105); [e] patients with LEI >0 at BL: 200 mg Q2W (n=88), 400 mg Q4W (n=84); [f] patients with LDI >0 at BL, defined as having at least 1 digit affected and with a difference in circumference ≥10% compared to the opposite digit: 200 mg Q2W (n=35), 400 mg Q4W (n=38).

## Supplementary Table 3. Clinical disease activity and patient-reported outcomes in patients randomized to CZP treatment at Week 0, by dose (observed case)

| | Week 0 CZP 200 mg Q2W (N=138) and Week 0 CZP 400 mg Q4W (N=135) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Week 0 | | | | Week 24 Score | | | | Week 48 Score | | | | Week 216 Score | | | |
| | 200 mg | | 400 mg | | 200 mg | | 400 mg | | 200 mg | | 400 mg | | 200 mg | | 400 mg | |
| | n | | n | | n | | n | | n | | n | | n | | n | |
| **Clinical outcomes: % observed patients achieving outcome, unless otherwise indicated** | | | | | | | | | | | | | | | | |
| ACR20 | | – | | – | 128 | 68.8 | 121 | 62.8 | 121 | 76.0 | 114 | 78.1 | 98 | 76.5 | 87 | 85.1 |
| *naïve*[a] | | – | | – | 100 | 69.0 | 99 | 63.6 | 96 | 77.1 | 94 | 78.7 | 76 | 75.0 | 75 | 85.3 |
| *experienced*[b] | | – | | – | 28 | 67.9 | 22 | 59.1 | 25 | 72.0 | 20 | 75.0 | 22 | 81.8 | 12 | 83.3 |
| ACR50 | | – | | – | 128 | 48.4 | 121 | 46.3 | 121 | 56.2 | 114 | 55.3 | 98 | 59.2 | 87 | 69.0 |
| *naïve*[a] | | – | | – | 100 | 49.0 | 99 | 45.5 | 96 | 56.3 | 94 | 54.3 | 76 | 57.9 | 75 | 69.3 |
| *experienced*[b] | | – | | – | 28 | 46.4 | 22 | 50.0 | 25 | 56.0 | 20 | 60.0 | 22 | 63.6 | 12 | 66.7 |
| ACR70 | | – | | – | 128 | 30.5 | 121 | 27.3 | 121 | 39.7 | 114 | 37.7 | 98 | 49.0 | 87 | 54.0 |
| *naïve*[a] | | – | | – | 100 | 31.0 | 99 | 27.3 | 96 | 39.6 | 94 | 37.2 | 76 | 50.0 | 75 | 54.7 |
| *experienced*[b] | | – | | – | 28 | 28.6 | 22 | 27.3 | 25 | 40.0 | 20 | 40.0 | 22 | 45.5 | 12 | 50.0 |
| CFB DAPSA, mean (SD) | 138 | 46.0 (23.2) | 135 | 43.5 (22.5) | 128 | -28.4 (22.4) | 121 | -25.2 (17.4) | 123 | -31.1 (21.6) | 116 | -27.6 (19.6) | 98 | -33.5 (21.9) | 87 | -34.0 (21.2) |
| DAPSA LDA | 138 | 1.4 | 135 | 1.5 | 128 | 33.6 | 121 | 25.6 | 123 | 35.8 | 116 | 39.7 | 98 | 35.7 | 87 | 27.6 |
| DAPSA remission | | – | | – | 128 | 25.0 | 121 | 25.6 | 123 | 30.1 | 116 | 26.7 | 98 | 38.8 | 87 | 50.6 |
| MDA | | – | | – | 128 | 37.5 | 121 | 38.8 | 122 | 45.9 | 115 | 44.3 | 98 | 53.1 | 87 | 63.2 |
| VLDA | | – | | – | 128 | 16.4 | 121 | 13.2 | 119 | 16.8 | 114 | 22.8 | 98 | 27.6 | 85 | 30.6 |
| PASI75 [c] | | – | | – | 79 | 70.9 | 65 | 70.8 | 75 | 80.0 | 61 | 77.0 | 66 | 81.8 | 42 | 76.2 |
| PASI90 [c] | | – | | – | 79 | 53.2 | 65 | 41.5 | 75 | 58.7 | 61 | 52.5 | 66 | 60.6 | 42 | 64.3 |
| PASI100 [c] | | – | | – | 79 | 34.2 | 65 | 15.4 | 75 | 48.0 | 61 | 34.4 | 66 | 43.9 | 42 | 42.9 |
| CFB % BSA [c], mean (SD) | 90 | 24.7 (23.6) | 76 | 23.5 (21.1) | 83 | -18.2 (21.1) | 66 | -15.5 (15.8) | 78 | -20.2 (23.6) | 62 | -17.0 (15.4) | 67 | -21.6 (20.7) | 42 | -20.0 (17.8) |
| BSA ≤1% [c] | | – | | – | 83 | 44.6 | 66 | 31.8 | 78 | 59.0 | 62 | 51.6 | 67 | 59.7 | 42 | 66.7 |
| CFB Tender joint count, mean (SD) | 138 | 21.5 (15.3) | 135 | 19.5 (14.8) | 128 | -13.4 (13.9) | 121 | -10.8 (11.3) | 121 | -14.2 (13.9) | 114 | -11.7 (12.7) | 98 | 15.8 (13.0) | 87 | -15.9 (13.2) |
| CFB Swollen joint count, mean (SD) | 138 | 11.0 (8.8) | 135 | 10.5 (7.5) | 128 | -8.0 (8.6) | 121 | -7.6 (6.4) | 121 | -9.1 (8.0) | 114 | -8.2 (6.7) | 98 | -9.7 (9.0) | 87 | -9.0 (7.3) |
| CFB mNAPSI [d], mean (SD) | 92 | 3.1 (1.8) | 105 | 3.4 (2.2) | 86 | -1.8 (1.8) | 93 | -2.2 (2.4) | 82 | -2.0 (2.2) | 90 | -2.6 (2.3) | 65 | -2.7 (1.9) | 67 | -3.0 (2.0) |
| mNAPSI=0 [d] | | – | | – | 86 | 34.9 | 93 | 41.9 | 82 | 51.2 | 90 | 56.7 | 65 | 69.2 | 67 | 73.1 |
| CFB LEI [e], mean (SD) | 88 | 3.1 (1.7) | 84 | 2.9 (1.6) | 82 | -2.0 (1.8) | 76 | -1.9 (1.9) | 77 | -2.1 (1.8) | 72 | -2.1 (1.8) | 57 | -2.2 (1.7) | 53 | -2.5 (1.7) |
| LEI=0 [e] | | – | | – | 82 | 65.9 | 76 | 64.5 | 77 | 70.1 | 72 | 72.2 | 57 | 77.2 | 53 | 77.4 |
| CFB LDI [f], mean (SD) | 35 | 45.3 (36.0) | 38 | 56.8 (75.9) | 31 | -43.5 (35.2) | 34 | -48.8 (46.5) | 31 | -42.4 (33.5) | 31 | -51.2 (48.0) | 27 | -49.6 (34.6) | 23 | -51.2 (45.4) |
| LDI=0 [f] | | – | | – | 31 | 74.2 | 34 | 73.5 | 31 | 83.9 | 31 | 93.5 | 27 | 92.6 | 23 | 91.3 |
| **Patient-reported outcomes: mean (SD)** | | | | | | | | | | | | | | | | |
| CFB HAQ-DI | 138 | 1.33 (0.66) | 135 | 1.29 (0.60) | 128 | -0.53 (0.63) | 120 | -0.47 (0.54) | 120 | -0.59 (0.63) | 116 | -0.55 (0.55) | 98 | -0.57 (0.65) | 87 | -0.56 (0.61) |
| CFB Pain | 138 | 59.7 (20.7) | 135 | 61.1 (18.5) | 128 | -28.8 (29.1) | 121 | -30.7 (25.0) | 122 | -33.7 (28.6) | 116 | -33.4 (26.1) | 98 | -34.2 (29.0) | 87 | -41.1 (24.8) |
| CFB Fatigue | 135 | 6.3 (2.0) | 134 | 6.2 (2.1) | 120 | -2.4 (2.7) | 119 | -2.1 (2.2) | 119 | -2.4 (2.6) | 114 | -2.2 (2.2) | 95 | -2.6 (2.9) | 86 | -2.9 (2.4) |
| CFB PsAQoL | 137 | 11.1 (5.5) | 135 | 11.3 (5.6) | 127 | -4.6 (5.0) | 121 | -3.5 (5.3) | 122 | -5.2 (5.1) | 116 | -3.7 (5.2) | 97 | -5.2 (5.2) | 87 | -5.1 (5.9) |
| CFB SF-36 PCS | 136 | 33.1 (7.8) | 132 | 33.2 (7.6) | 122 | 8.8 (10.2) | 118 | 8.2 (7.6) | 121 | 9.3 (9.6) | 111 | 9.2 (8.5) | 96 | 9.5 (10.9) | 85 | 10.4 (9.5) |
| CFB SF-36 MCS | 136 | 40.7 (11.3) | 132 | 41.9 (12.7) | 122 | 5.7 (9.8) | 118 | 4.1 (9.5) | 121 | 5.4 (10.8) | 111 | 3.4 (9.2) | 96 | 5.4 (10.4) | 85 | 5.3 (10.8) |

Data are shown for the Randomized Set. Data are observed case. ACR20/50/70: 20%, 50%, and 70% or greater improvement in ACR score; BSA: body surface area affected by psoriasis; CFB: change from baseline; DAPSA: Disease Activity Index for Psoriatic Arthritis; HAQ-DI: Health Assessment Questionnaire Disability Index; LDA: Low Disease Activity; LDI: Leeds Dactylitis Index; LEI: Leeds Enthesitis Index; MDA: 5/7 minimal disease activity criteria; mNAPSI: modified Nail Psoriasis Severity Index; PASI75/90/100: 75%, 90%, or 100% improvement in the Psoriasis Area and Severity Index; PsAQoL: psoriatic arthritis quality of life; SF-36 PCS: Short Form (36) health survey, physical component summary; SF-36 MCS: Short Form (36)

health survey – mental component summary. [a] anti-TNF naïve patients: 200 mg Q2W (n=107), 400 mg Q4W (n=112); [b] anti-TNF experienced patients: 200 mg Q2W (n=31), 400 mg Q4W (n=23); [c] patients with baseline BSA≥3%: 200 mg Q2W (n=90), 400 mg Q4W (n=76); [d] patients with mNAPSI >0 at BL: 200 mg Q2W (n=92), 400 mg Q4W (n=105); [e] patients with LEI >0 at BL: 200 mg Q2W (n=88), 400 mg Q4W (n=84); [f] patients with LDI >0 at BL, defined as having at least 1 digit affected and with a difference in circumference ≥10% compared to the opposite digit: 200 mg Q2W (n=35), 400 mg Q4W (n=38).

## Supplementary Table 4. Clinical disease activity and patient-reported outcomes in patients treated with CZP at any stage during RAPID-PsA on either dose regimen

| | All CZP Dose Combined (N=393) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Week 0 | | Week 24 | | | Week 48 | | | Week 216 | |
| | Observed | | Observed | | Imputed | Observed | | Imputed | Observed | Imputed |
| | n | | n | Score | | n | | | n | |
| **Clinical outcomes: % patients achieving outcome, unless otherwise indicated** | | | | | | | | | | |
| ACR20 | | – | 308 | 64.3 | 59.6 | 348 | 77.9 | 69.0 | 266 | 83.1 | 56.2 |
| *naïve* [a] | | – | 242 | 65.7 | 60.7 | 283 | 79.2 | 70.4 | 219 | 83.1 | 57.2 |
| *experienced* [b] | | – | 66 | 59.1 | 55.7 | 65 | 72.3 | 62.7 | 47 | 83.0 | 52.0 |
| ACR50 | | – | 308 | 45.1 | 41.9 | 348 | 56.3 | 49.9 | 267 | 64.4 | 43.8 |
| *naïve* [a] | | – | 242 | 45.9 | 42.4 | 283 | 56.2 | 50.0 | 219 | 64.4 | 44.3 |
| *experienced* [b] | | – | 66 | 42.4 | 40.0 | 65 | 56.9 | 49.3 | 48 | 64.6 | 41.3 |
| ACR70 | | – | 308 | 26.6 | 24.7 | 347 | 38.6 | 34.1 | 267 | 50.6 | 34.4 |
| *naïve* [a] | | – | 242 | 26.9 | 24.8 | 282 | 38.3 | 34.0 | 219 | 51.1 | 35.2 |
| *experienced* [b] | | – | 66 | 25.8 | 24.3 | 65 | 40.0 | 34.7 | 48 | 47.9 | 30.7 |
| CFB DAPSA, mean (SD) | 393 | 43.9 (22.3) | 369 | -23.6 (19.2) | -23.2 (19.8) | 356 | -28.2 (20.4) | -27.0 (21.0) | 267 | -32.7 (21.0) | -28.7 (23.0) |
| DAPSA LDA | 393 | 1.5 | 369 | 30.9 | 29.8 | 356 | 36.0 | 34.4 | 267 | 33.7 | 31.0 |
| DAPSA remission | | – | 369 | 19.5 | 18.6 | 356 | 28.1 | 26.0 | 267 | 43.4 | 35.6 |
| MDA | | – | 308 | 35.7 | 33.1 | 351 | 44.4 | 39.7 | 267 | 58.1 | 39.4 |
| VLDA | | – | 308 | 13.0 | 12.0 | 348 | 19.5 | 17.3 | 264 | 29.5 | 19.8 |
| PASI75 [c] | | – | 180 | 65.6 | 57.8 | 201 | 78.6 | 65.8 | 151 | 80.1 | 50.4 |
| PASI90 [c] | | – | 180 | 43.3 | 38.2 | 201 | 58.2 | 48.8 | 151 | 62.9 | 39.6 |
| PASI100 [c] | | – | 180 | 22.8 | 20.1 | 201 | 40.8 | 34.2 | 151 | 43.7 | 27.5 |
| CFB % BSA [c], mean (SD) | 240 | 22.9 (21.7) | 187 | -16.0 (19.7) | -15.4 (20.0) | 210 | -18.3 (20.4) | -17.3 (20.5) | 152 | -20.6 (20.1) | -17.8 (20.3) |
| BSA ≤1% [c] | | – | 187 | 35.3 | 32.8 | 210 | 57.1 | 53.1 | 152 | 66.4 | 58.8 |
| CFB Tender joint count, mean (SD) | 393 | 20.1 (14.8) | 308 | -11.0 (12.4) | -10.6 (13.2) | 348 | -12.5 (12.8) | -11.9 (13.4) | 267 | -15.1 (12.8) | -13.1 (14.2) |
| CFB Swollen joint count, mean (SD) | 393 | 10.5 (7.9) | 308 | -7.1 (7.8) | -7.1 (7.9) | 348 | -8.3 (7.2) | -8.1 (7.6) | 267 | -9.1 (8.0) | -8.4 (8.1) |
| CFB mNAPSI [d], mean (SD) | 291 | 3.3 (2.0) | 228 | -1.9 (2.2) | -1.8 (2.2) | 263 | -2.3 (2.2) | -2.2 (2.2) | 197 | -2.9 (1.9) | -2.7 (2.2) |
| mNAPSI=0 [d] | | – | 272 | 38.2 | 36.8 | 263 | 53.6 | 51.2 | 197 | 73.1 | 66.7 |
| CFB LEI [e], mean (SD) | 250 | 3.0 (1.6) | 203 | -1.9 (1.8) | -1.9 (1.8) | 225 | -2.1 (1.7) | -2.1 (1.8) | 161 | -2.3 (1.7) | -2.1 (1.9) |
| LEI=0 [e] | | – | 236 | 62.7 | 62.0 | 225 | 70.7 | 68.4 | 161 | 78.9 | 70.4 |
| CFB LDI [f], mean (SD) | 104 | 54.5 (71.8) | 77 | -49.5 (67.7) | -50.1 (73.9) | 91 | -51.8 (64.9) | -51.1 (69.6) | 69 | -57.8 (70.1) | -51.6 (69.4) |
| LDI=0 [f] | | - | 95 | 64.2 | 62.5 | 91 | 84.6 | 79.8 | 69 | 89.9 | 78.8 |
| **Patient-reported outcomes: mean (SD)** | | | | | | | | | | | |
| CFB HAQ-DI | 393 | 1.29 (0.63) | 307 | -0.48 (0.55) | -0.46 (0.56) | 350 | -0.54 (0.57) | -0.51 (0.59) | 266 | -0.56 (0.60) | -0.49 (0.62) |
| CFB Pain | 393 | 59.9 (20.1) | 308 | -28.0 (26.3) | -27.2 (26.3) | 352 | -33.5 (25.9) | -31.1 (26.7) | 267 | -37.3 (26.2) | -32.3 (28.4) |
| CFB Fatigue | 389 | 6.1 (2.0) | 295 | -2.1 (2.4) | -2.0 (2.4) | 347 | -2.3 (2.5) | -2.1 (2.5) | 262 | -2.7 (2.6) | -2.2 (2.8) |
| CFB PsAQoL | 392 | 11.1 (5.5) | 307 | -3.8 (5.1) | -3.7 (5.0) | 353 | -4.3 (5.2) | -4.1 (5.1) | 265 | -5.1 (5.6) | -4.5 (5.6) |
| CFB SF-36 PCS | 387 | 33.4 (7.8) | 297 | 7.9 (8.7) | 7.6 (8.9) | 344 | 8.7 (8.5) | 8.2 (8.6) | 261 | 9.7 (9.3) | 8.6 (9.5) |
| CFB SF-36 MCS | 387 | 41.8 (12.0) | 297 | 4.8 (9.7) | 4.4 (10.0) | 344 | 4.4 (10.0) | 4.0 (10.0) | 261 | 5.2 (10.8) | 3.6 (11.1) |

Data are shown for the Randomized Set. Data were imputed using NRI for missing categorical data and LOCF for missing continuous measures. ACR20/50/70: 20%, 50%, and 70% or greater improvement in ACR score; BSA: body surface area affected by psoriasis; CFB: change from baseline; DAPSA: Disease Activity Index for Psoriatic Arthritis; HAQ-DI: Health Assessment Questionnaire Disability Index; LDA: Low Disease Activity; LDI: Leeds Dactylitis Index; LEI: Leeds Enthesitis Index; MDA: 5/7 minimal disease activity criteria; mNAPSI: modified Nail Psoriasis Severity Index; PASI75/90/100: 75%, 90%, or 100% improvement in the Psoriasis Area and Severity Index; PsAQoL: psoriatic arthritis quality of life; SF-36 PCS: Short Form (36) health survey, physical component summary; SF-36 MCS: Short Form (36) health survey – mental component summary. [a] anti-

TNF naïve patients, n=318; [b] anti-TNF experienced patients, n=75; [c] patients with baseline BSA≥3%, n=240; [d] patients with mNAPSI >0 at BL, n=291; [e] patients with LEI >0 at BL, n=250; [f] patients with LDI >0 at BL, defined as having at least 1 digit affected and with a difference in circumference ≥10% compared to the opposite digit, n=104.

## Supplementary Table 5. Structural joint damage in patients treated with CZP in RAPID-PsA

### A. Change in mTSS from baseline to Week 216

| | Week 0 CZP 200 mg Q2W (N=138) | Week 0 CZP 400 mg Q4W (N=135) | Week 0 CZP Dose Combined (N=273) | PBO to CZP Week 16 Dose Combined (N=59) | PBO to CZP Week 24 Dose Combined (N=61) |
|---|---|---|---|---|---|
| **mTSS at CZP baseline** | | | | | |
| *Observed Case* | | | | | |
| **n observed** | 136 | 133 | 269 | 57 | 59 |
| **Mean (SD)** | 14.32 (24.82) | 17.78 (42.48) | 16.03 (34.67) | 27.04 (55.21) | 14.45 (23.88) |
| **Median** | 5.25 | 4.00 | 4.50 | 3.50 | 5.00 |
| **[Min, Max]** | (0.0, 210.0) | (0.0, 342.5) | (0, 342.5) | (0.0, 231.5) | (0.0, 114.5) |
| *MMRM estimates, LS mean (SE), [95% CI]* | | | | | |
| **mTSS at CZP baseline** | 14.13 (3.14) [7.96,20.30] | 17.78 (3.20) [11.50, 24.07] | 15.96 (2.24) [11.55, 20.36] | 26.81 (4.80) [17.37, 36.24] | 14.07 (4.72) [4.79, 23.35] |
| **CFB at Week 96** | 0.21 (0.17) [-0.12, 0.54] | 0.34 (0.17) [0.00, 0.68] | 0.28 (0.12) [0.04, 0.51] | -0.31 (0.25) [-0.81, 0.19] | 0.05 (0.25) [-0.43, 0.54] |
| **CFB at Week 168** | 0.53 (0.26) [0.01, 1.04] | 0.71 (0.27) [0.17, 1.25] | 0.62 (0.19) [0.25, 0.99] | -0.47 (0.40) [-1.25, 0.31] | 0.46 (0.39) [-0.30, 1.23] |
| **CFB at Week 216** | 0.76 (0.27) [0.23, 1.30] | 0.68 (0.28) [0.12, 1.24] | 0.72 (0.20) [0.33, 1.11] | -0.60 (0.41) [-1.40, 0.21] | 0.61 (0.40) [-0.18, 1.40] |

### B. Observed rate of structural joint damage non-progression at Weeks 96 and 216

| *Observed case* | Week 0 CZP 200 mg Q2W (N=138) | Week 0 CZP 400 mg Q4W (N=135) | Week 0 CZP Dose Combined (N=273) | PBO to CZP Week 16 Dose Combined (N=59) | PBO to CZP Week 24 Dose Combined (N=61) |
|---|---|---|---|---|---|
| **Rate of non-progression (defined as CFB in mTSS ≤0.5), n/N (%)*** | | | | | |
| **Week 96** | 93/110 (84.5) | 87/104 (83.7) | 108/214 (84.1) | 43/49 (87.8) | 48/52 (92.3) |
| **Week 216** | 78/98 (79.6) | 67/88 (76.1) | 145/186 (78.0) | 39/41 (95.1) | 34/41 (82.9) |
| **Rate of non-progression (defined as CFB in mTSS ≤0), n/N (%)*** | | | | | |
| **Week 96** | 78/110 (70.9) | 79/104 (76.0) | 157/214 (73.4) | 40/49 (81.6) | 42/52 (80.8) |
| **Week 216** | 62/98 (63.3) | 59/88 (67.0) | 121/186 (65.1) | 36/41 (87.8) | 28/41 (68.3) |

Data are shown for the Randomized Set. *Patients with non-progression as a proportion of those assessed for progression at the visit. CFB: change from baseline; CZP: certolizumab pegol; MMRM: mixed effect model for repeated measures; mTSS: modified total Sharp score; PBO: placebo.

## Supplementary Table 6. Structural joint damage in patients treated with CZP in RAPID-PsA, stratified by baseline mTSS

### A. Change in mTSS from baseline to Week 216

| | Week 0 CZP 200 mg Q2W | | Week 0 CZP 400 mg Q4W | | Week 0 CZP Dose Combined | | PBO to CZP Week 16 Dose Combined | | PBO to CZP Week 24 Dose Combined | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Baseline mTSS subgroup** | **≤4.5 (n=65)** | **>4.5 (n=71)** | **≤4.5 (n=75)** | **>4.5 (n=58)** | **≤4.5 (n=140)** | **>4.5 (n=129)** | **≤4.5 (n=31)** | **>4.5 (n=26)** | **≤4.5 (n=29)** | **>4.5 (n=30)** |
| **mTSS at baseline** *Observed case* | | | | | | | | | | |
| **n observed** | 65 | 71 | 75 | 58 | 140 | 129 | 31 | 26 | 29 | 30 |
| **Mean (SD)** | 1.30 (1.38) | 26.23 (29.75) | 1.48 (1.44) | 38.86 (58.09) | 1.40 (1.41) | 31.91 (45.02) | 1.31 (1.44) | 57.71 (70.89) | 1.17 (1.43) | 27.28 (28.13) |
| **Median** | 1.00 | 15.00 | 1.00 | 18.50 | 1.00 | 16.50 | 0.50 | 28.00 | 0.50 | 15.25 |
| **[Min, Max]** | [0.0, 4.5] | [5.0, 210.0] | [0.0, 4.5] | [5.0, 342.5] | [0.0, 4.5] | [5.0, 342.5] | [0.0, 4.5] | [5.0, 231.5] | [0.0, 4.5] | [5.0, 114.5] |
| *MMRM estimates, LS mean (SE), [95% CI]* | | | | | | | | | | |
| **mTSS at CZP baseline** | 1.30 (0.18) [0.95, 1.65] | 26.23 (5.60) [15.18, 37.28] | 1.48 (0.16) [1.16, 1.80] | 38.86 (6.19) [26.64, 51.09] | 1.39 (0.12) [1.15, 1.63] | 32.55 (4.18) [24.31, 40.79] | 1.31 (0.26) [0.80, 1.81] | 57.71 (9.25) [39.46, 75.97] | 1.17 (0.26) [0.65, 1.69] | 27.28 (8.61) [10.29, 44.28] |
| **CFB at Week 96** | 0.12 (0.06) [0.01, 0.23] | 0.29 (0.32) [-0.35, 0.93] | 0.08 (0.05) [-0.03, 0.18] | 0.70 (0.38) [-0.05, 1.46] | 0.10 (0.04) [0.02, 0.17] | 0.50 (0.25) [0.00, 0.99] | 0.07 (0.08) [-0.08, 0.23] | -0.73 (0.54) [-1.80, 0.33] | -0.02 (0.08) [-0.17, 0.13] | 0.14 (0.52) [-0.88, 0.16] |
| **CFB at Week 168** | 0.14 (0.09) [-0.04, 0.31] | 0.88 (0.51) [-0.12, 1.88] | 0.16 (0.08) [0.01, 0.32] | 1.46 (0.60) [0.27, 2.65] | 0.15 (0.06) [0.03, 0.27] | 1.17 (0.39) [0.39, 1.95] | 0.05 (0.12) [-0.19, 0.29] | -1.06 (0.86) [-2.75, 0.63] | -0.04 (0.12) [-0.28, 0.20] | 1.04 (0.81) [-0.57, 2.64] |
| **CFB at Week 216** | 0.17 (0.11) [-0.05, 0.39] | 1.29 (0.51) [0.28, 2.30] | 0.19 (0.10) [-0.01, 0.39] | 1.33 (0.61) [0.12, 2.54] | 0.18 (0.08) [0.03, 0.33] | 1.31 (0.40) [0.52, 2.10] | 0.05 (0.16) [-0.26, 0.36] | -1.03 (0.86) [-2.74, 0.68] | 0.27 (0.16) [-0.04, 0.59] | 0.99 (0.82) [-0.63, 2.61] |

### B. Observed rate of structural joint damage non-progression at Weeks 96 and 216

| *Observed case* | Week 0 CZP 200 mg Q2W | | Week 0 CZP 400 mg Q4W | | Week 0 CZP Dose Combined | | PBO to CZP Week 16 Dose Combined | | PBO to CZP Week 24 Dose Combined | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Baseline mTSS subgroup** | **≤4.5 (n=65)** | **>4.5 (n=71)** | **≤4.5 (n=75)** | **>4.5 (n=58)** | **≤4.5 (n=140)** | **>4.5 (n=129)** | **≤4.5 (n=31)** | **>4.5 (n=26)** | **≤4.5 (n=29)** | **>4.5 (n=30)** |
| **Rate of non-progression (defined as CFB in mTSS ≤0.5), n/N (%)*** | | | | | | | | | | |
| **Week 96** | 46/49 (93.9) | 47/61 (77.0) | 56/60 (93.3) | 31/44 (70.5) | 102/109 (93.6) | 78/105 (74.3) | 25/27 (92.6) | 18/22 (81.8) | 28/28 (100) | 20/24 (83.3) |
| **Week 216** | 43/47 (91.5) | 35/51 (68.6) | 48/55 (87.3) | 19/33 (57.6) | 91/102 (89.2) | 54/84 (64.3) | 22/23 (95.7) | 17/18 (94.4) | 19/21 (90.5) | 15/20 (75.0) |
| **Rate of non-progression (defined as CFB in mTSS ≤0), n/N (%)*** | | | | | | | | | | |
| **Week 96** | 40/49 (81.6) | 38/61 (62.3) | 53/60 (88.3) | 26/44 (59.1) | 93/109 (85.3) | 64/105 (61.0) | 23/27 (85.2) | 17/22 (77.3) | 26/28 (92.9) | 16/24 (66.7) |
| **Week 216** | 34/47 (72.3) | 28/51 (54.9) | 43/55 (78.2) | 16/33 (48.5) | 77/102 (75.5) | 44/84 (52.4) | 21/23 (91.3) | 15/18 (83.3) | 16/21 (76.2) | 12/20 (60.0) |

Data are shown for the Randomized Set. *Patients with non-progression as a proportion of those assessed for progression at the visit. CFB: change from baseline; CZP: certolizumab pegol; MMRM: mixed effect model for repeated measures; mTSS: modified total Sharp score; PBO: placebo.