PCR229

Achieving Increasingly Stringent Disease Control Criteria was Associated with Greater Quality of Life Improvements in Patients with Active Psoriatic Arthritis: Results from BE OPTIMAL and BE COMPLETE/BE VITAL up to 1 Year

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Objective

To report the association between achieving stringent disease control criteria and improvements in health-related quality of life (HRQoL) and work productivity in patients with psoriatic arthritis (PsA) up to 1 year.

Background

- PsA places a substantial burden on HRQoL.[1,2]
- Bimekizumab (BKZ) is a monoclonal IgG1 antibody that selectively inhibits interleukin (IL)-17F in addition to IL-17A.
- BKZ has demonstrated efficacy and safety in patients with PsA in BE OPTIMAL (biologic disease-modifying antirheumatic drug [bDMARD]-naïve patients) and BE COMPLETE (tumour necrosis factor inhibitor intolerance/inadequate response [TNFi-IR] patients).[3,4] BE VITAL is an ongoing open-label extension study.
- Patient-reported symptoms were also improved with BKZ treatment and these improvements were sustained up to 1 year.[5,6]

Methods

- In this post hoc analysis, patients achieving the following disease control criteria at Week 52 of BE OPTIMAL (NCT03895203) or Week 40 of BE COMPLETE/BE VITAL (NCT03896581/NCT04009499) were pooled within studies regardless of treatment arm:
  - **ACR:** <ACR20, ACR20–<ACR50, ACR50–<ACR70, ≥ACR70;
  - **ACR50+PASI100:** non-responder, responder;
  - **DAPSA:** HDA, MoDA, LDA/REM;
  - **MDA:** non-MDA, MDA.
- Associations between achievement of disease control criteria and improvements from baseline in HRQoL and work productivity were assessed:
  - **EQ-5D-3L VAS**: 0 (worst) to 100 (best);
  - **EQ-5D-3L utility [UK tariff]:** less than 0 (worst) to 1 (best);[7]
  - **SF-36 PCS:** higher scores reflect better physical function;
  - **WPAI percent overall work impairment:** decreases in percentages indicate reduction in work impairment and improvement in productivity.
- Observed case (OC) data are reported.

Results

- Overall, 770/852 (90.4%) patients completed Week 52 of BE OPTIMAL and 360/400 (90.0%) patients completed Week 40 of BE COMPLETE/BE VITAL.*
- Baseline HRQoL and overall work impairment were generally similar between bDMARD-naïve and TNFi-IR patients (**Table 1**).
- At Week 52/40, bDMARD-naïve and TNFi-IR patients achieving greater ACR responses demonstrated greater mean (95% confidence interval [CI]) improvements in EQ-5D-3L VAS (**Figure 1A**) and EQ-5D-3L utility [UK tariff] (**Figure 1B**).
- Similar associations were observed when using ACR50+PASI100, DAPSA or MDA thresholds.
- At Week 52/40, ACR, ACR50+PASI100, DAPSA and MDA responders demonstrated greater improvements in SF-36 PCS (**Figure 1C**) and reductions in WPAI percent overall work impairment (**Figure 1D**).

Conclusions

Achievement of increasingly stringent disease control criteria up to 1 year was associated with greater, clinically relevant improvements in HRQoL and work productivity in patients with PsA, irrespective of prior bDMARD use.

Summary

Patients with active PsA who achieved **increasingly stringent disease control criteria** reported **greater improvements** in **HRQoL** and **work productivity** up to **1 year**, irrespective of prior bDMARD treatment.

Achieving greater disease control criteria

- **ACR**
- **ACR50+PASI100**
- **DAPSA**
- **MDA**

Improved HRQoL

- **EQ-5D-3L VAS**
- **EQ-5D-3L utility [UK tariff]**
- **SF-36 PCS**

Improved work productivity

- **WPAI percent overall work impairment**
  - **Hours missed**
  - **Productivity affected whilst working**

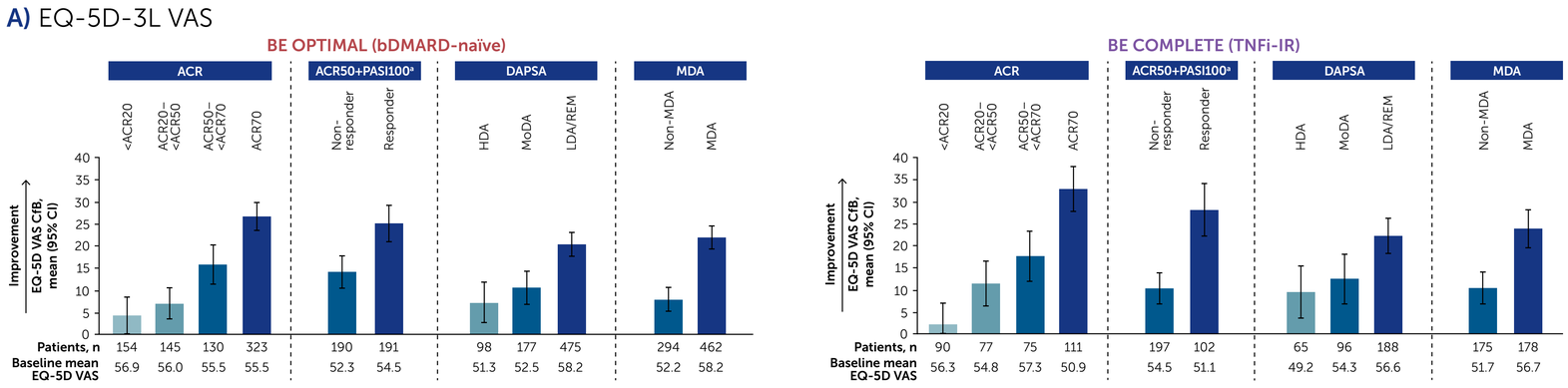
Table 1 Baseline demographics and patient characteristics

	BE OPTIMAL (bDMARD-naïve) N=852	BE COMPLETE (TNFi-IR) N=400
Age, years, mean (SD)	48.7 (12.3)	50.5 (12.5)
Male, n (%)	399 (46.8)	190 (47.5)
BMI, kg/m², mean (SD)	29.2 (6.4)	29.8 (6.2)
Time since first PsA diagnosis,[a] years, mean (SD)	5.9 (7.0)	9.5 (9.3)
Concomitant methotrexate, n (%)	496 (58.2)	170 (42.5)
BSA affected by psoriasis ≥3%, n (%)	425 (49.9)	264 (66.0)
PASI score,[b] mean (SD)	8.1 (6.6)	9.6 (8.4)
TJC (of 68 joints), mean (SD)	17.0 (12.2)	18.7 (13.8)
SJC (of 66 joints), mean (SD)	9.2 (6.7)	9.9 (7.7)
Enthesitis (LEI >0),[c] n (%)	249 (29.2)	142 (35.5)
LEI score,[c,d] mean (SD)	2.6 (1.5)	2.7 (1.5)
Dactylitis (LDI >0),[e] n (%)	100 (11.7)	48 (12.0)
LDI score,[e,f] mean (SD)	47.3 (47.8)	70.9 (117.0)
hs-CRP ≥6 mg/L, n (%)	323 (37.9)	177 (44.3)
HAQ-DI,[g] mean (SD)	0.85 (0.59)	0.99 (0.62)
Pain VAS,[g,h] mean (SD)	55.2 (23.9)	59.5 (24.3)
EQ-5D-3L VAS,[g] mean (SD)	56.3 (20.0)	54.4 (20.4)
EQ-5D-3L utility [UK tariff],[g] mean (SD)	0.63 (0.23)	0.56 (0.27)
SF-36 PCS,[g] mean (SD)	37.6 (9.4)	36.3 (9.4)
WPAI percent overall work impairment,[i] mean (SD)	35.8 (26.6)	40.5 (27.9)

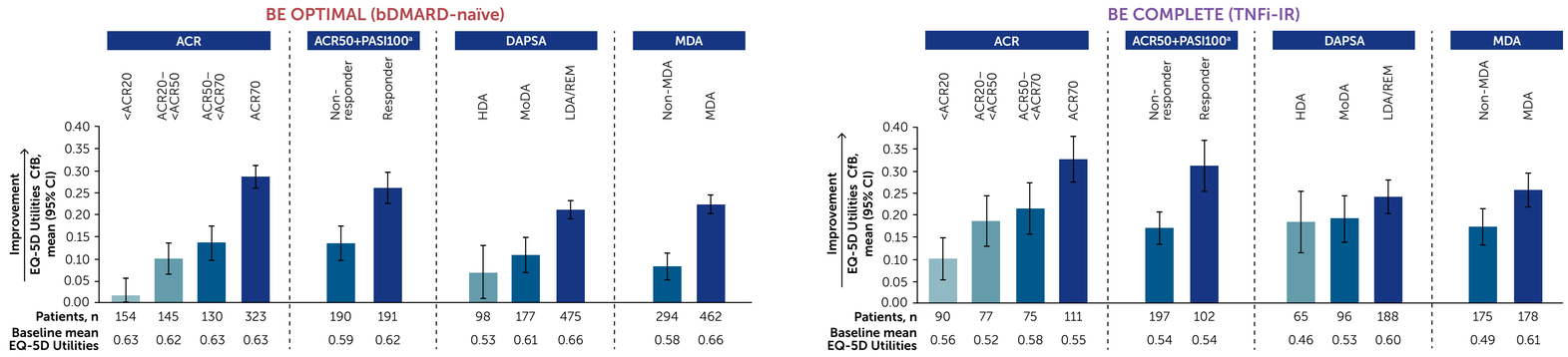
Randomised set. [a]BE OPTIMAL: n=841; BE COMPLETE: n=398; [b]In patients with psoriasis involving at least 3% of BSA at baseline; [c]Data missing for 7 patients in BE OPTIMAL (6 BKZ and 1 ADA), and 1 PBO patient in BE COMPLETE; [d]In patients with enthesitis (LEI >0) at baseline; [e]Data missing for 9 patients in BE OPTIMAL (1 PBO, 7 BKZ, 1 ADA), and 1 PBO patient in BE COMPLETE; [f]In patients with dactylitis at baseline (LDI >0); [g]BE OPTIMAL: data missing for 1 BKZ-randomised patient; [h]Pain VAS scores measured using PtAAP; score ranges from 0 (no pain) to 100 (most severe pain); [i]Overall work impairment includes absenteeism (hours missed) and presenteeism (productivity affected whilst working).

Figure 1 Achieving greater disease control is associated with greater improvements in HRQoL and work productivity in bDMARD-naïve and TNFi-IR patients with PsA (OC)

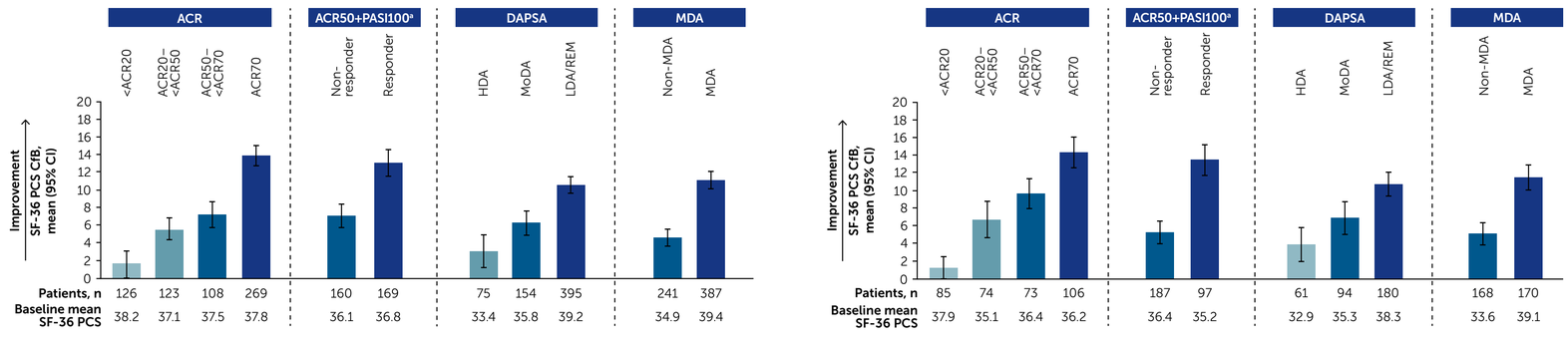
A) EQ-5D-3L VAS



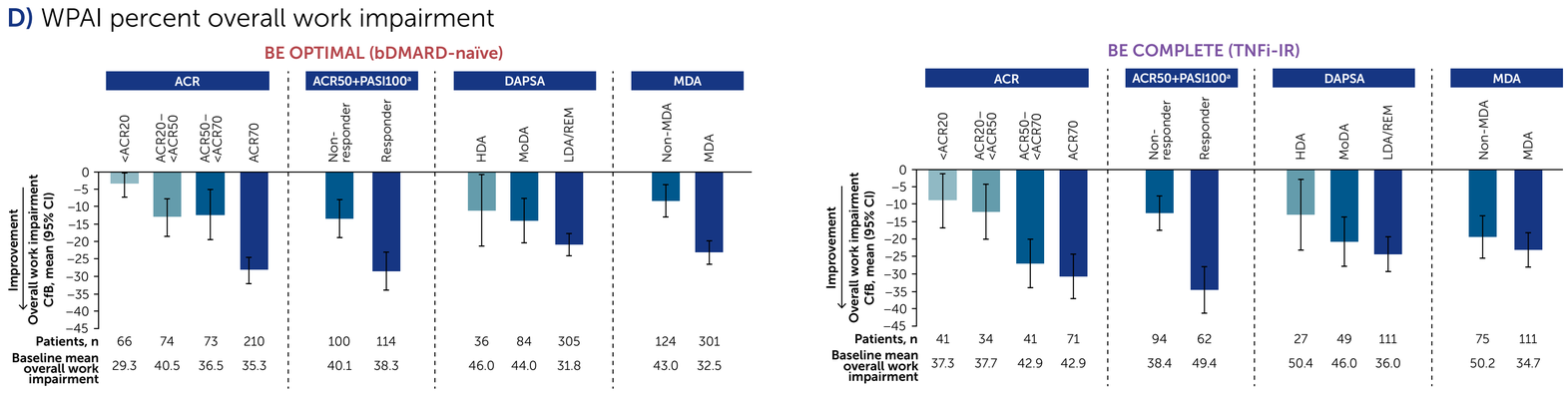
B) EQ-5D-3L utility [UK tariff]



C) SF-36 PCS



D) WPAI percent overall work impairment



Randomised set. Categories are mutually exclusive. DAPSA HDA: >28; MoDA: >14 to ≤28; LDA/REM: ≤14. [a]In patients with psoriasis involving at least 3% of BSA at baseline.

*Including patients not on randomised treatment (BE OPTIMAL: 9; BE COMPLETE: 4). **ACR:** American College of Rheumatology; **ACR20/50/70:** ≥20/50/70% improvements from baseline in ACR criteria; **ADA:** adalimumab; **bDMARD:** biologic disease-modifying antirheumatic drug; **BKZ:** bimekizumab; **BMI:** body mass index; **BSA:** body surface area; **CfB:** change from baseline; **CI:** confidence interval; **DAPSA:** Disease Activity in Psoriatic Arthritis; **EQ-5D-3L:** EuroQol-5 Dimensions-3 Level; **HAQ-DI:** Health Assessment Questionnaire-Disability Index; **HDA:** high disease activity; **HRQoL:** health-related quality of life; **hs-CRP:** high-sensitivity C-reactive protein; **IL:** interleukin; **LDA:** low disease activity; **MDA:** minimal disease activity; **MoDA:** moderate disease activity; **OC:** observed case; **PASI:** Psoriasis Area and Severity Index; **PASI100:** 100% improvement from baseline in PASI; **PBO:** placebo; **PsA:** psoriatic arthritis; **PtAAP:** Patient's Assessment of Arthritis Pain; **REM:** remission; **SD:** standard deviation; **SF-36 PCS:** Short-Form 36-item Health Survey Physical Component Summary; **SJC:** swollen joint count; **TJC:** tender joint count; **TNFi-IR:** inadequate response/intolerance to tumour necrosis factor inhibitors; **VAS:** visual analogue scale; **WPAI:** Work Productivity and Activity Impairment questionnaire.

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