

Bimekizumab inhibited radiographic progression across baseline subgroups in biologic-naïve patients with active psoriatic arthritis: 3-year results from a phase 3 study and its open-label extension

P1816

Philipp Sewerin,¹ Laura C. Coates,² Philip J. Mease,³ M. Elaine Husni,⁴ Mitsumasa Kishimoto,⁵ Proton Rahman,⁶ Enrique R. Soriano,⁷ David Nicholls,⁸ Nadine Goldammer,⁹ Jason Coarse,¹⁰ Peter Nash¹¹

¹Rheumazentrum Ruhrgebiet, University Hospital of the Ruhr University Bochum, Herne, Germany; ²Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Diseases, University of Oxford and Oxford Biomedical Research Centre, Oxford University Hospitals NHS Trust, Oxford, UK; ³Department of Rheumatology, Providence-Swedish Medical Center and University of Washington, Seattle, USA; ⁴Department of Rheumatic and Immunologic Diseases, Cleveland Clinic, Cleveland, USA; ⁵Department of Nephrology and Rheumatology, Kyorin University School of Medicine, Tokyo, Japan; ⁶Division of Rheumatology, Craig L. Dobbin Genetics Research Centre, Discipline of Medicine, Memorial University of Newfoundland, St John's, Canada; ⁷Rheumatology Section, Internal Medicine Service, Hospital Italiano de Buenos Aires and University Hospital Italiano de Buenos Aires, Buenos Aires, Argentina; ⁸Clinical Trials Unit, University of the Sunshine Coast, Queensland, Australia; ⁹UCB, Monheim am Rhein, Germany; ¹⁰UCB, Morrisville, USA; ¹¹School of Medicine, Griffith University, Brisbane, Australia

Objective

To explore the impact of bimekizumab (BKZ) on the prevention of permanent joint damage at 3 years in biological disease-modifying antirheumatic drug (biologic)-naïve patients with psoriatic arthritis (PsA), both overall and across predefined subgroups.

Background

- Persistent inflammation in PsA can drive structural joint damage, which may contribute to physical impairment and reduced quality of life.¹
- Evaluating if treatments can durably suppress damage across patients with varying disease severity, disease duration, age and sex is important, as these factors have been linked to radiographic progression.²
- BKZ, a humanised IgG1 monoclonal antibody that selectively inhibits interleukin (IL)-17F in addition to IL-17A, has previously demonstrated sustained inhibition of radiographic progression in patients with PsA up to 2 years.³

Methods

- BE OPTIMAL (NCT03895203), placebo (PBO)-controlled to Week 16, assessed subcutaneous BKZ 160 mg every 4 weeks (Q4W) in biologic-naïve patients with PsA. PBO patients switched to BKZ at Week 16 (PBO/BKZ).
- Week 52 completers could enter BE VITAL (open-label extension; NCT04009499), in which all patients received BKZ 160 mg Q4W.
- This post hoc analysis assessed radiographic progression using plain radiographs of the hands and feet, scored with the van der Heijde modified Total Sharp Score (vdHmTSS; range: 0–528, higher scores indicate greater joint damage).
- Radiographs taken at baseline and 3 years (Week 148) were centrally read by two independent, experienced, treatment-blinded readers; discrepancies of ≥8 units were resolved by a third adjudicator.
- Subgroup analyses included risk status (at-risk [high-sensitivity C-reactive protein (hs-CRP) ≥6 mg/L and/or ≥1 bone erosion at baseline], not at-risk), PsA disease duration (<1, 1–5, >5 years), age (<45, ≥45 years) and sex (male, female).
- Outcomes reported at Week 148 for the BKZ Total group (PBO/BKZ and BKZ-randomised patients):
 - Proportions of patients with no radiographic progression (defined as vdHmTSS change from baseline [CfB] ≤0.5);
 - CfB in vdHmTSS, vdH joint space narrowing (JSN) and vdH erosion;
 - Cumulative probability of vdHmTSS CfB for the overall and risk status groups.
- Analyses were descriptive and based on observed cases (OC) for patients with radiographs at Week 148 in the overall radiographic set and across subgroups.

Results

- Of 712 patients in the BKZ Total group, 579 had radiographs at baseline and ≥1 post-baseline visit, forming the overall radiographic set; of these, 524 had radiographs available at Week 148.
 - Baseline demographics and characteristics were similar to the overall BE OPTIMAL study BKZ Total population (Table⁴).
- At Week 148, the majority of patients in the overall radiographic set had no radiographic progression (Figure 1).
- High proportions of patients across subgroups also experienced no radiographic progression at Week 148 (Figure 1):
 - Greater proportions of patients not at-risk vs at-risk at baseline had no radiographic progression;
 - Greater proportions of patients with a shorter disease duration at baseline had no radiographic progression;
 - Greater proportions of patients aged <45 vs ≥45 years had no radiographic progression;
 - Comparable proportions of males and females had no radiographic progression.
- Patients at-risk, with disease duration >5 years, aged ≥45 years and male sex at baseline had higher baseline vdHmTSS, vdH JSN and vdH erosion scores compared with their respective counterparts. However, radiographic progression at Week 148 was minimal, both in the overall radiographic set and across subgroups (Figure 2).
- The cumulative probability of structural progression remained minimal, with most patients showing no progression (Figure 3). These findings were consistent with those reported at 2 years.³

Conclusions

Bimekizumab treatment was associated with minimal radiographic progression over 3 years in biologic-naïve patients with PsA, with consistent efficacy across clinically relevant subgroups. In separate subgroup analyses, higher proportions of patients with no radiographic progression were observed among those not at-risk, those with a shorter disease duration, and those aged <45 years. Overall, the likelihood of meaningful structural progression remained low over the 3-year treatment period.

Summary

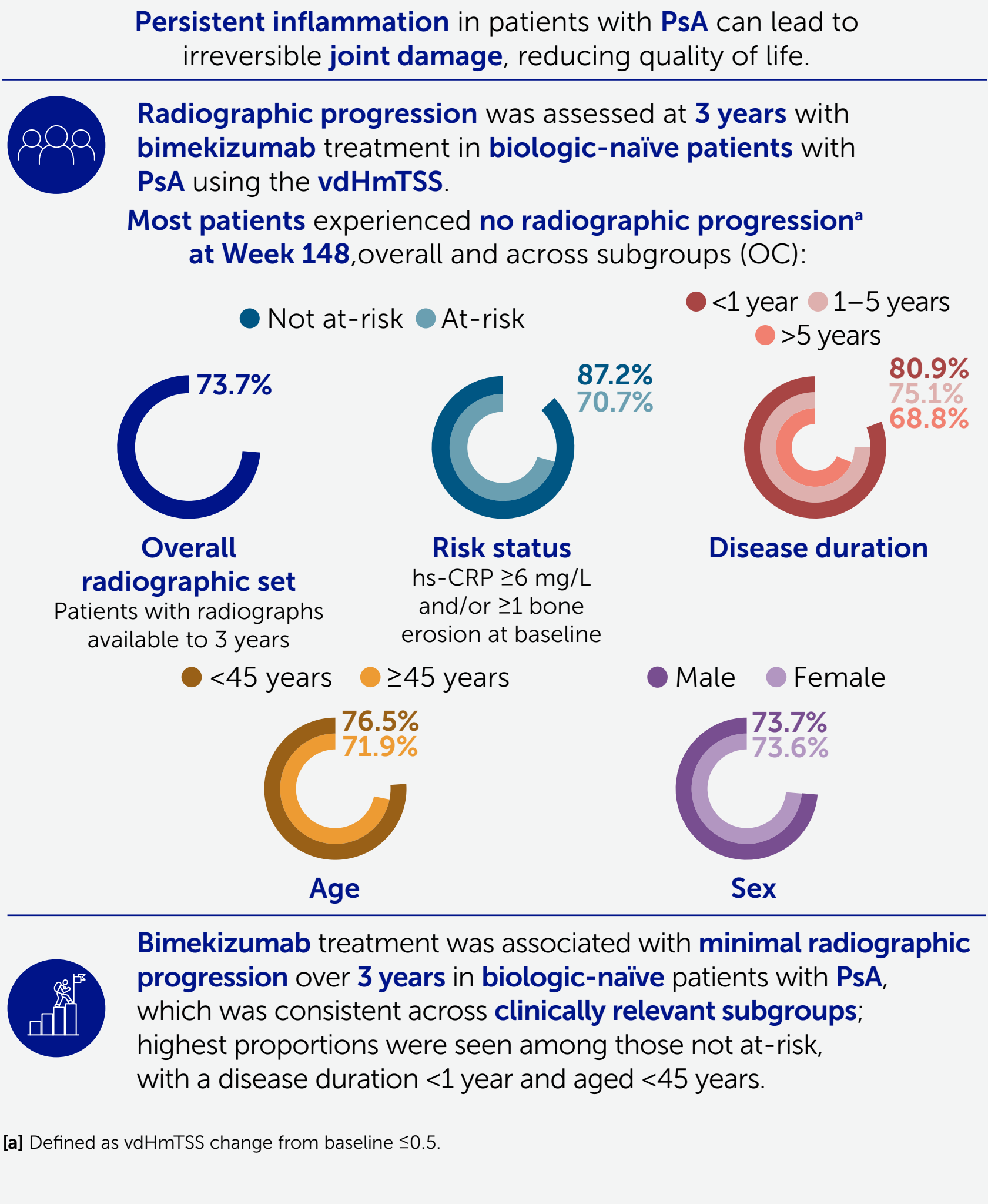


Figure 1 Proportion of BKZ Total patients with no radiographic progression at Week 148 (OC)

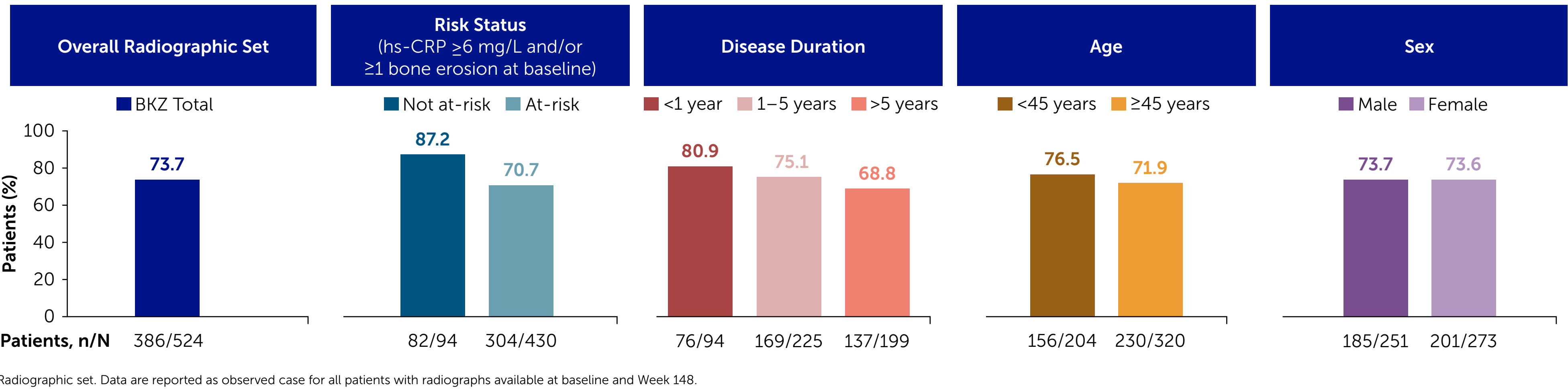


Figure 2 Mean CfB in radiographic outcomes in BKZ Total patients at Week 148 (OC)

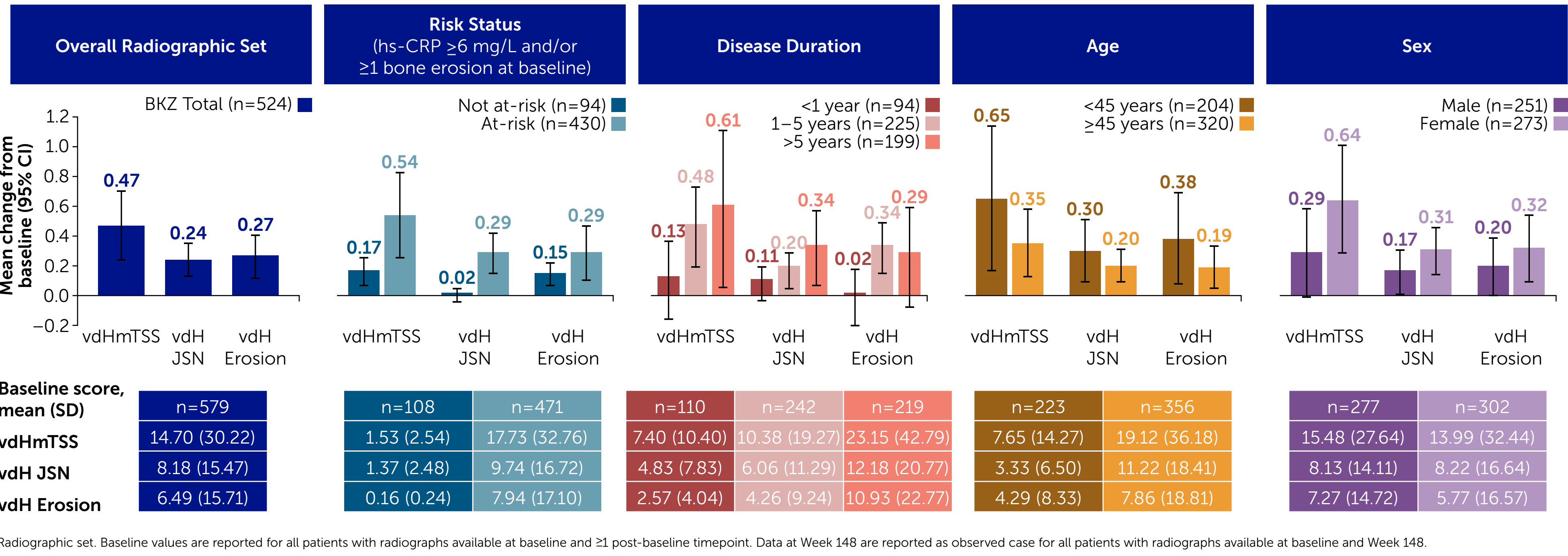
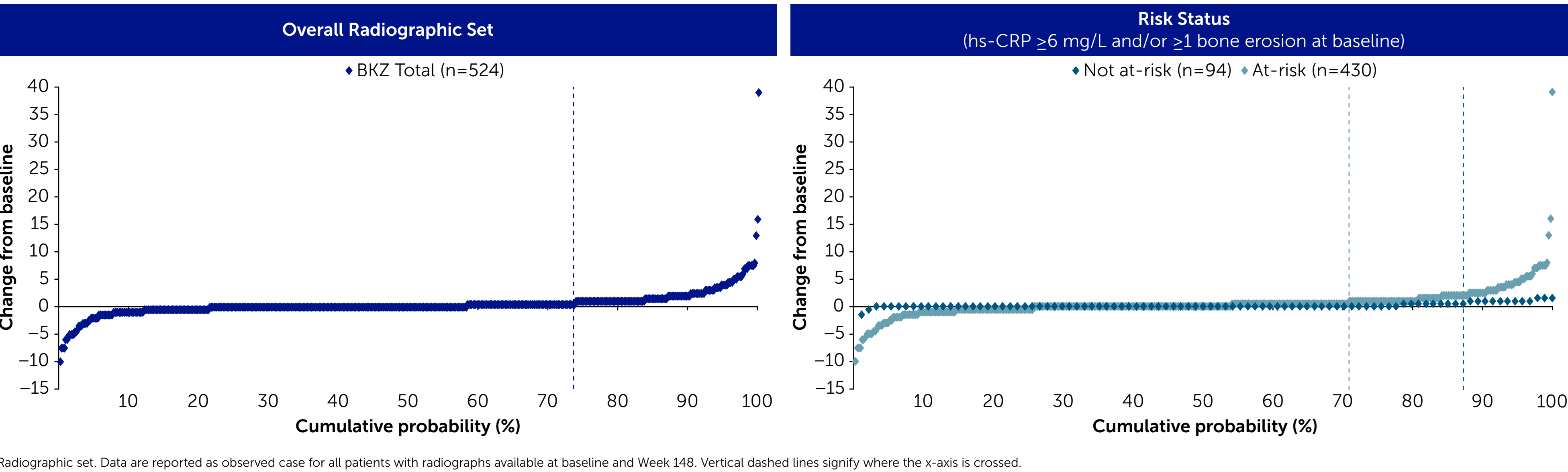
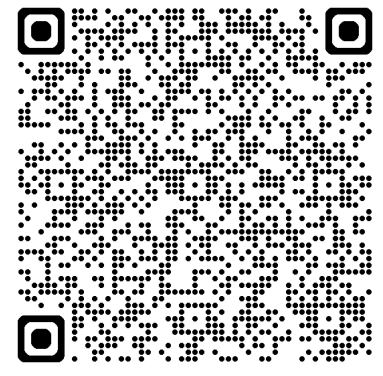


Figure 3 Cumulative probability of vdHmTSS change from baseline in BKZ Total patients at Week 148 (OC)



BKZ: bimekizumab; BMI: body mass index; BSA: body surface area; CfB: change from baseline; CI: confidence interval; csDMARD: conventional synthetic disease-modifying antirheumatic drug; hs-CRP: high-sensitivity C-reactive protein; IL: interleukin; JSN: joint space narrowing; LDI: Leeds Dactylitis Index; LEI: Leeds Enthesitis Index; mNAPSI: modified Nail Psoriasis Severity Index; OC: observed case; OLE: open-label extension; PASI: Psoriasis Area and Severity Index; PBO: placebo; PsA: psoriatic arthritis; Q4W: every 4 weeks; SD: standard deviation; vdHmTSS: van der Heijde modified Total Sharp Score.

References: ¹van der Heijde D. Arthritis Res Ther 2020;22:18. ²Koc GH. RMD Open 2024;10:e004080. ³Coates LC. Ann Rheum Dis 2025;84:1309–10. ⁴Gossec L. Rheumatology 2026; keag118. **Author Contributions:** Substantial contributions to study conception/design, or acquisition/analysis/interpretation of data: **PS, LCC, PJM, MEH, MK, PR, ERS, DN, NG, JC, PN.** Drafting of the publication, or reviewing it critically for important intellectual content: **PS, LCC, PJM, MEH, MK, PR, ERS, DN, NG, JC, PN.** Final approval of the publication: **PS, LCC, PJM, MEH, MK, PR, ERS, DN, NG, JC, PN.** **Author Disclosures:** **PS:** Speakers bureau for AbbVie, Amgen, AXIOM Health, Biogen, BMS, Celgene, Chugai Pharma Marketing Ltd/Chugai Europe, Deutscher Psoriasis-Bund, Gilead Sciences, Hexal Pharma, Janssen-Cilag, Johnson & Johnson, Lilly/Lilly Europe/Lilly Global, medi-login, Mediri GmbH, Novartis Pharma, Onkowsissen GmbH, Pfizer, Roche Pharma, Rheumazentrum Rhein-Ruhr, Sanofi-Genzyme, Spirit Medical Communication, Swedish Orphan Biovitrum and UCB; grant/research support from AbbVie, Amgen, AstraZeneca, Ayumi Pharma, BMS, Celgene, Chugai Pharma Marketing Ltd/Chugai Europe, Deutscher Psoriasis-Bund, Gilead Sciences, Hexal Pharma, Janssen-Cilag, Johnson & Johnson, Lilly/Lilly Europe/Lilly Global, medi-login, Mediri GmbH, Novartis Pharma, Onkowsissen GmbH, Pfizer, Roche Pharma, Rheumazentrum Rhein-Ruhr, Sanofi-Genzyme, Spirit Medical Communication, Swedish Orphan Biovitrum and UCB. **LCC:** Grant/research support from AbbVie, Amgen, Celgene, Eli Lilly, Gilead, Janssen, Novartis, Pfizer and UCB; consultant for AbbVie, Amgen, BMS, Boehringer Ingelheim, Celgene, Domain, Eli Lilly, Galapagos, Gilead, Janssen, Moonlake Immunotherapeutics, Novartis, Pfizer and UCB; speaking fees from AbbVie, Amgen, Biogen, Celgene, Eli Lilly, Galapagos, Gilead, GSK, Janssen, medac, Novartis, Pfizer and UCB. **PJM:** Research grants from AbbVie, Acelyrin, Amgen, BMS, Eli Lilly and Company, Johnson & Johnson Innovative Medicine, Novartis, Pfizer, Sana and UCB; consulting fees from AbbVie, Acelyrin, Amgen, BMS, Century, Cullinan, Eli Lilly and Company, Immagene, Johnson & Johnson Innovative Medicine, MoonLake Immunotherapeutics, Novartis, Pfizer, Spyre, Takeda and UCB; speakers bureau fees from AbbVie, Amgen, Eli Lilly and Company, Johnson & Johnson Innovative Medicine, Novartis, Pfizer and UCB. **MEH:** Advisory board member and consultant for AbbVie, Amgen, BMS, Eli Lilly, Janssen, Novartis, Pfizer and UCB. **MK:** Speakers bureau fees from AbbVie, Amgen, Asahi-Kasei Pharma, AstraZeneca, Ayumi Pharma, BMS, Celgene, Chugai, Daiichi Sankyo, Eisai, Gilead, Janssen, Lilly, Novartis, Tanabe-Mitsubishi and UCB; consultant for AbbVie, Amgen, Asahi-Kasei Pharma, Ayumi Pharma, BMS, Celgene, Chugai, Gilead, Janssen, Lilly, Novartis, Takeda, Tanabe-Mitsubishi and UCB. **PR:** Consulting fees from Abbott, AbbVie, Amgen, BMS, Celgene, Eli Lilly and Company, Janssen, Novartis, Pfizer and UCB; research grants from Janssen and Novartis. **ERS:** Grants for research and clinical trials and honoraria for advice and lectures on behalf of AbbVie, BMS, Eli Lilly, GSK, Johnson & Johnson, Novartis, Pfizer, Raffo and UCB. **DN:** Research support from AbbVie, BMS, Eli Lilly, Gilead, Incannex, Janssen, Novartis, Pfizer, Servatus, Sun Pharma, UCB, advisory board or speaker fees from AbbVie, AstraZeneca, Janssen, Novartis, Pfizer, Sandoz and UCB. **NG, JC:** Employee and shareholder of UCB. **PN:** Speakers bureau fees from AbbVie, AstraZeneca, BMS, Janssen, Lilly, Novartis, Pfizer and UCB; consultant for AbbVie, AstraZeneca, BMS, Janssen, Lilly, Novartis, Pfizer, Servatus, UCB and Xencor; grant/research support from AbbVie, Amgen, AstraZeneca, BMS, Janssen, Lilly, Novartis, Pfizer, Servatus, UCB and Xencor. **Acknowledgements:** We would like to thank the patients and their caregivers in addition to all the investigators and their teams who contributed to this study. The authors acknowledge Lyes Derouchie, PhD, UCB, for editorial review and publication coordination, Becky Sainty, PhD, Costello Medical, Cambridge, UK for medical writing and editorial assistance, and the Costello Medical Creative team for design support. Funded by UCB. All costs associated with development of this presentation were funded by UCB.



To receive a copy of this poster, scan the QR code.
Link expiration: 1 January 2027