A matching-adjusted indirect comparison of the efficacy of bimekizumab and guselkumab at 52 weeks for the treatment of psoriatic arthritis

**Synopsis**
Bimekizumab, a monoclonal IgG1 antibody that selectively inhibits interleukin-17F, in addition to IL-17A, has shown efficacy and tolerability in patients with active psoriatic arthritis (PsA) in several clinical trials. To compare the efficacy of bimekizumab (BKZ) and guselkumab (GUS) in patients with PsA who are biologic disease-modifying anti-rheumatic drug-naïve (bio-n) vs. biologic-naïve patients with PsA who have been treated with TNF inhibitors (TNFi-exp) in previous trials, a matching-adjusted indirect comparison (MAIC) was conducted. The primary outcomes assessed in this comparison were achievement of American College of Rheumatology (ACR) 20, 50, and 70 responses (ACR20/50/70) and minimal disease activity (MDA).

**Methods**

- **Objective**: In bio-n patients, the post-matching ESS for BKZ was 181 (68% of OSS) for comparison to GUS trial patients; weights were determined using a logistic regression based on sex, age, body mass index (BMI), and disease diagnostic year (of 68 joints)
- **Synopsis**: In this study, the MAIC findings at 52 weeks are consistent with recent NMA suggesting better efficacy of BKZ had a greater likelihood of achieving ACR20, ACR50, and ACR70 outcomes than GUS. In TNFi-exp patients, the post-matching ESS for BKZ was 155 (39.2% of OSS) for comparison to GUS trial patients; weights were determined using a logistic regression based on sex, age, BMI, and disease diagnostic year (of 68 joints)
- **Results**: BKZ had a greater likelihood of achieving ACR20, ACR50, and MDA outcomes than GUS at 52 weeks.
- **Conclusions**: The MAIC findings at 52 weeks are consistent with recent NMA suggesting better efficacy of BKZ against GUS on joint outcomes at 6 to 24 weeks.

**Figure 1** Summary of MAIC method

- **Table 1** Patient baseline characteristics before matching

**Figure 2** Matching-adjusted odds ratio comparison of BKZ vs GUS at Week 52 (NRI)

- **Table 2** Matching-adjusted response rates of BKZ vs GUS in patients with active PsA at Week 52 (NRI)

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**Figure 3** Matching-adjusted response rates of BKZ vs GUS in patients with active PsA at Week 52 (NRI)

- **Table 3** Matching-adjusted response rates of BKZ vs GUS in patients with active PsA at Week 52 (NRI)

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