The Effect of Elranatamab on Patient-Reported Outcomes in Patients With Relapsed/Refractory Multiple Myeloma Naive and Exposed to B-Cell Maturation Antigen (BCMA)–Directed Therapies: Updated Follow-Up From the MagnetisMM-3 Study

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Objective

To present updated PROs from BCMA-naive and -exposed patients with RRMM enrolled in the MagnetisMM-3 study after 28 months of follow-up

Conclusions

- Despite early transient worsening of global health and side effect domain scores, subcutaneous elranatamab monotherapy improved the symptoms and overall QOL of patients with RRMM, regardless of prior BCMA-directed therapy
- For those who continued receiving treatment, the improvement in health-related QOL outcome measures was maintained for more than 2 years

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Supplementary Materials

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References: 1. Larocca A, et al. Br J Haematol 2022;196:639-648. **2.** Elrexfio (elranatamab-bccm). Prescribing information. Pfizer; 2023. **3.** Elrexfio (elranatamab-bccm). Summary of product characteristics. Pfizer; Europe MA EEIG 2024. **4.** Japan Pharmaceuticals and Medical Devices Agency. Accessed October 29, 2024. https://www.pmda.go.jp/files/000269224.pdf. **5.** ClinicalTrials.gov. Accessed October 14, 2024. https://clinicaltrials.gov/study/NCT04649359

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Background

- In addition to extending survival, treatment goals for patients with relapsed or refractory multiple myeloma (RRMM) often include managing disease- and treatment-related symptoms to maintain or potentially improve quality of life (QOL)[1]
- Elranatamab is a humanized, bispecific antibody targeting B-cell maturation antigen (BCMA) on multiple myeloma cells and CD3 on T cells and is approved for the treatment of RRMM in the US and additional countries[2-4]
- MagnetisMM-3 (NCT04649359), an open-label, multicenter, nonrandomized, phase 2 registrational study evaluating the efficacy and safety of elranatamab monotherapy in patients with RRMM, enrolled 2 cohorts of patients who had disease refractory to ≥1 proteasome inhibitor, ≥1 immunomodulatory drug, and ≥1 anti-CD38 antibody[5]
  - Cohort A: patients without prior BCMA-directed therapy (BCMA naive)
  - Cohort B: patients with prior BCMA-directed therapy (antibody-drug conjugate and/or chimeric antigen receptor T-cell therapy; BCMA exposed)

Methods

- Patients received elranatamab subcutaneously in 28-day cycles with step-up doses of 12 mg on day (D) 1 and 32 mg on D4, followed by the full treatment dose of 76 mg once weekly (QW) starting on D8 of cycle (C) 1
- If a patient received QW elranatamab for ≥6 cycles and achieved an International Myeloma Working Group response category of partial response or better with responses persisting for ≥2 months, then the dose interval was changed from QW to every 2 weeks (Q2W; beginning on C7D1) and from Q2W to every 4 weeks after ≥6 Q2W cycles
- Patient-reported outcome (PRO) measures included the European Organisation for Research and Treatment of Cancer (EORTC) QLQ-C30, EORTC QLQ-MY20, and EQ-5D-5L administered on D1 and D15 of the first 3 cycles, D1 of each subsequent cycle through C12, and D1 of every third cycle afterward, with C30D1 as the last cycle included in this analysis
- Analyses included repeated-measures longitudinal models with a data cutoff of March 26, 2024
- PROs were summarized using descriptive statistics at each time point, and relative changes from baseline in PRO data were calculated as the least squares mean (LSM) change (95% CI)
- This set of analyses is intended for descriptive purposes and is not meant to test any prespecified hypotheses. Any inferences that could be drawn from the results may not be reproducible and should be regarded as hypothesis generators for future confirmatory assessments

Results

BASELINE DEMOGRAPHICS AND CLINICAL CHARACTERISTICS

- Demographic and clinical characteristics were generally similar between naive - and -exposed cohorts (**Table**)
  - However, the incidence of extramedullary disease (31.7% vs 57.8%) and the number of median prior lines of therapy (5.0 vs 7.5) were lower in BCMA-naive vs BCMA-exposed patients, respectively

QLQ-C30

- ***Global health status*** **(Figure 1A)**
  - **BCMA-naive patients:** A transient worsening in the global health score relative to baseline was observed through C2D15 (LSM change, −5.9; 95% CI, −10.7 to −1.1); the score reverted to baseline levels by C3D1 and generally showed non-significant improvement from baseline starting at C7D1/C8D1
  - **BCMA-exposed patients:** A modest, nonsignificant worsening in the global health score was observed with the nadir at C1D15 (LSM change, −2.0; 95% CI, −8.0 to 4.0). This was followed by a nonsignificant improvement relative to baseline by C2D15 (LSM change, 5.2; 95% CI, −2.6 to 13.0), which was maintained through C30D1 (LSM change, 15.0; 95% CI, −10.8 to 40.8)
- ***Pain*** **(Figure 1B)**
  - **BCMA-naive patients:** Significant (ie, 95% CI does not cross 0) reductions in pain were observed starting at C4D1 (LSM change, −6.6; 95% CI, −12.8 to −0.4) and were largely maintained, although scores trended back toward baseline levels at C30D1 (LSM change, −1.5; 95% CI, −10.9 to 7.9)
  - **BCMA-exposed patients:** A reduction in pain (significant at select time points) was observed starting at C2D1 (LSM change, −5.1; 95% CI, −12.9 to 2.8) and was generally maintained, although small sample sizes (ie, n<10) after C12D1 limited interpretability

QLQ-MY20

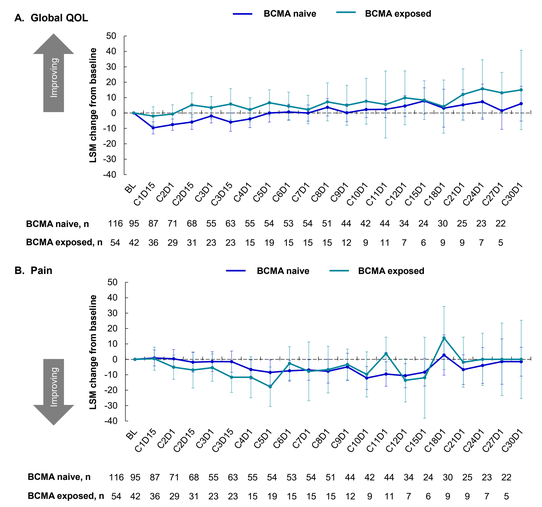
- ***Disease symptoms*** **(Figure 2A)**
  - **BCMA-naive patients:** A significant reduction in disease symptoms was observed starting at C5D1 (LSM change, −6.9; 95% CI, −10.6 to −3.1) and was generally maintained through C30D1 (LSM change, −4.3; 95% CI, −10.6 to 2.0)
  - **BCMA-exposed patients:** A reduction in disease symptoms (significant at select time points) was observed starting at C2D1 (LSM change, −9.9; 95% CI, −17.4 to −2.4) and was generally maintained beyond this point, although small sample sizes after C12D1 limited interpretability
- ***Side effects of treatment*** **(Figure 2B)**
  - **BCMA-naive patients:** A transient worsening in the side effect domain relative to baseline was observed through C2D15 (LSM change, 4.3; 95% CI, 1.4-7.2); the score reverted to baseline levels by C3D1 and generally showed nonsignificant improvement from baseline starting around C7D1
  - **BCMA-exposed patients:** The side effects domain remained at baseline levels until C9D1 when an improvement was reported through C10D1, returning to baseline levels by C11D1; small sample sizes after C12D1 limited interpretability
- ***Body image***
  - There was little change in the body image domain in BCMA-naive patients over treatment cycles; however, a significant improvement in the body image domain was observed in BCMA-exposed patients beginning at C6D1 (LSM change, 16.7; 95% CI, 5.0-28.4) and was largely maintained through C30D1
- ***Future perspectives***
  - In both BCMA-naive and -exposed patients, significant improvements in the future perspective domain were observed as early as C1D15 (LSM change, 5.2; 95% CI, 1.1-9.2 and LSM change, 5.8; 95% CI, 0.9-10.8, respectively), which continued to improve or were maintained through C30D1

Table 1. Baseline demographics and clinical characteristics

	BCMA naive (n=123)	BCMA exposed (n=64)
Age, median (range), years	68.0 (36-89)	67.0 (41-84)
Male, n (%)	68 (55.3)	30 (46.9)
Race, n (%)		
Asian	16 (13.0)	1 (1.6)
Black or African American	9 (7.3)	2 (3.1)
White	72 (58.5)	44 (68.8)
Unknown	1 (0.8)	0
Not reported	25 (20.3)	17 (26.6)
ECOG performance status, n (%)		
0	45 (36.6)	20 (31.3)
1	71 (57.7)	40 (62.5)
2	7 (5.7)	4 (6.3)
R-ISS disease stage, n (%)		
I	28 (22.8)	11 (17.2)
II	68 (55.3)	36 (56.3)
III	19 (15.4)	15 (23.4)
Unknown	8 (6.5)	2 (3.1)
Cytogenetic risk, n (%)		
High[a]	31 (25.2)	13 (20.3)
Standard	83 (67.5)	42 (65.6)
Missing	9 (7.3)	9 (14.1)
Extramedullary disease, n (%)		
Yes	39 (31.7)	37 (57.8)
No. of prior lines of therapy, median (range)	5.0 (2-22)	7.5 (3-19)

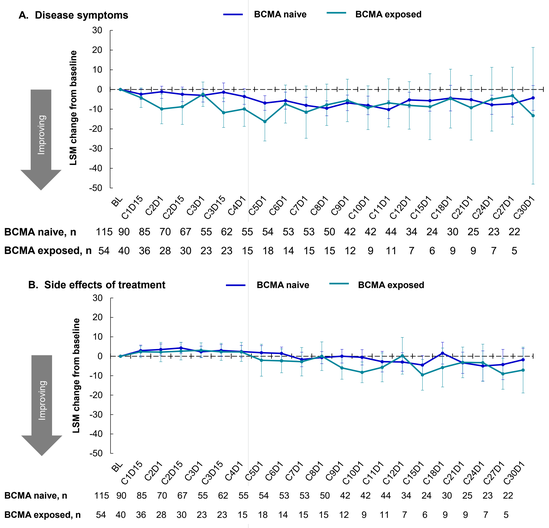
[a] Includes t(4;14), t(14;16), and del(17p) chromosomal abnormalities
BCMA=B-cell maturation antigen; ECOG=Eastern Cooperative Oncology Group; R-ISS=Revised International Staging System

Figure 1. Change from baseline in QLQ-C30 score by visit



Error bars represent 95% CI
BCMA=B-cell maturation antigen; BL=basline; C=cycle; D=day; LSM=least squares mean; QOL=quality of life

Figure 2. Change from baseline in QLQ-MY20 score by visit

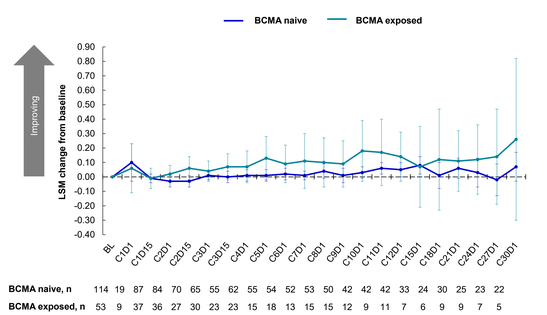


Error bars represent 95% CI
BCMA=B-cell maturation antigen; BL=basline; C=cycle; D=day; LSM=least squares mean

EQ-5D-5L

- ***Overall quality of life*** **(Figure 3)**
  - **BCMA-naive patients:** Using UK preference weights, QOL significantly improved by C11D1 (0.06; 95% CI, 0.02-0.09) and was maintained through C30D1 (0.07; 95% CI, −0.03 to 0.17)
  - **BCMA-exposed patients:** QOL scores trended toward improvement through C30D1, but none were significantly different than baseline values; small sample sizes after C12D1 limited interpretability

Figure 3. Change from baseline in EQ-5D-5L index score by visit



Error bars represent 95% CI
BCMA=B-cell maturation antigen; BL=basline; C=cycle; D=day; LSM=least squares mean