MagnetisMM-3: Long-Term Update and Efficacy and Safety of Less Frequent Dosing of Elranatamab in Patients with Relapsed or Refractory Multiple Myeloma

H. Miles Prince,[1] Nizar J. Bahlis,[2] Paula Rodriguez-Otero,[3] Lionel Karlin,[4] Luke Akard,[5] Asya Varshavsky-Yanovsky,[6] Michael P. Chu,[7] Yuya Nagai,[8] David H. Vesole,[9] Anne Hickman,[10] Sharon T. Sullivan,[11] Eric Leip,[11] Umberto Conte,[12] Andrea Viqueira,[13] Alexander M. Lesokhin[14]

[1]Epworth Healthcare, Melbourne, VIC, Australia; [2]Arnie Charbonneau Cancer Institute, University of Calgary, Calgary, AB, Canada; [3]Clinica Universidad de Navarra, Madrid, Spain; [4]Department of Hematology, Hôpital Lyon Sud, Pierre-Bénite, France; [5]Indiana Blood and Marrow Transplantation Clinic, Indianapolis, IN, USA; [6]Fox Chase Cancer Center, Philadelphia, PA, USA; [7]Cross Cancer Institute, Edmonton, AB, Canada; [8]Department of Hematology, Kobe City Medical Center General Hospital, Kobe, Japan; [9]John Theurer Cancer Center, Hackensack, NJ, USA; [10]Pfizer Inc, Groton, CT, USA; [11]Pfizer Inc, Cambridge, MA, USA; [12]Pfizer Inc, New York, NY, USA; [13]Pfizer SLU, Madrid, Spain; [14]Division of Hematology and Oncology, Memorial Sloan Kettering Cancer Center/Weill Cornell Medical College, New York, NY, USA

Objective

To report the long-term efficacy and safety of elranatamab in BCMA-naive patients approximately 32 months after the last patient initiated treatment, including results after the switch to dosing Q4W

Conclusions

- For patients in MagnetisMM-3, the median DOR has still not been reached after a median follow-up of 33.9 months (by reverse Kaplan-Meier)
- For patients with ≥CR, the probability of maintaining a response at 30 months was 79.1%
- MRD negativity rate was 90.3%
- Following the switch from Q2W to Q4W dosing, 92.6% of patients maintained their response ≥6 months after the switch
- Of all 28 patients who switched to Q4W dosing, the incidence of grade 3/4 infections decreased from 17.9% to 10.7%
- These data demonstrate that reducing the dosing frequency of elranatamab to Q4W may improve safety without compromising efficacy

Abstract Plain Language Summary

Please scan this quick response (QR) code with your smartphone app to view a plain language summary of the abstract. If you do not have a smartphone, you may access this material via the internet at https://scientificpubs.congressposter.com/pls/fe0bxfaezwnsj7h6

Supplementary Materials

Please scan this QR code with your smartphone app to view additional information for this poster. If you do not have a smartphone, you may access this material via the internet at https://scientificpubs.congressposter.com/p/fe0bxfaezwnsj7h6. To request an electronic version of this poster, please contact Pfizer Medical Information (https://www.pfizermedicalinformation.com/).

To ask questions about this poster, please contact H. Miles Prince, miles.prince@petermac.org

References: 1. Lesokhin AM, et al. Nat Med 2023;29:2259-2267. **2.** Elrexfio (elranatamab-bcmm). Prescribing information. Pfizer; 2023. **3.** Mohty M, et al. Presented at EHA 2024 [poster P932].

Acknowledgments: We thank the MagnetisMM-3 trial patients and their families, as well as the study investigators, nurses, and site staff. This study was sponsored by Pfizer. Medical writing support was provided by Brittany Woodby, PhD, of Nucleus Global and was funded by Pfizer.

Presented at the
2025 FLASCO Spring Congress
April 4 - 5, 2025 | Orlando, FL, USA

Background

- Elranatamab is a humanized bispecific antibody that targets both B-cell maturation antigen (BCMA)–expressing multiple myeloma (MM) cells and CD3-expressing T cells[1]
- In MagnetisMM-3 (NCT04649359), a multicenter, open-label, nonrandomized, phase 2 registrational study, elranatamab monotherapy induced deep and durable responses in patients with relapsed or refractory multiple myeloma (RRMM) who had not received prior BCMA-directed therapy (ie, BCMA naive; N=123)[1,2]
- Here, we report the long-term efficacy and safety of elranatamab in BCMA-naive patients approximately 32 months after the last patient initiated treatment, including results after the switch to dosing once every 4 weeks (Q4W)

Methods

- Eligible patients had RRMM with disease refractory to ≥1 immunomodulatory drug, ≥1 proteasome inhibitor, and ≥1 anti-CD38 antibody
- Patients received subcutaneous elranatamab as step-up priming doses followed by elranatamab 76 mg once-weekly (QW) for 6 cycles
- Patients treated with elranatamab QW for ≥6 cycles who achieved partial response (PR) or better lasting ≥2 months were transitioned to Q2W dosing and to Q4W after ≥6 cycles of Q2W dosing
- The primary endpoint was objective response rate (ORR), assessed by blinded-independent central review (BICR) per International Myeloma Working Group (IMWG) criteria
- Adverse events (AEs) were graded using the National Cancer Institute Common Terminology Criteria for AEs (version 5.0)
- Outcomes in patients who switched to Q4W dosing were assessed in a post hoc analysis
- The impact of Q4W dosing on efficacy was assessed by evaluating maintenance of response ≥6 months after the switch to Q4W
  - Patients were counted as responders if they had an assessment demonstrating response ≥6 months after the switch
- The impact of switching to Q4W dosing on safety was assessed by comparing the incidence of treatment-emergent AEs before and after the switch
  - New onset AEs for each participant were included for an equal time period before and after the switch (based on individual follow-up times after the switch), with a maximum time period of up to 6 months
- The data cutoff date was September 10, 2024; median follow-up by reverse Kaplan-Meier was 33.9 (95% CI, 33.4-34.6) months

Results

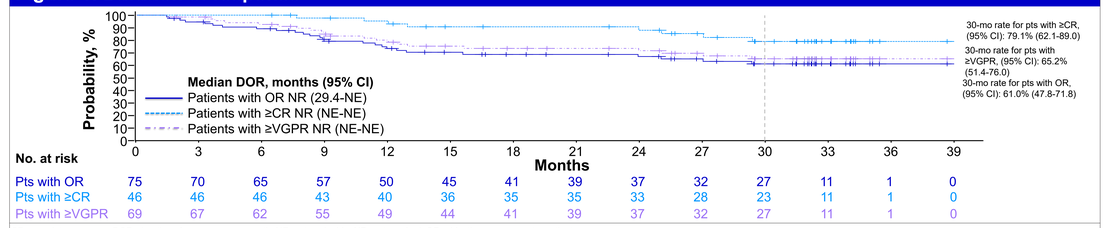
PATIENTS AND TREATMENT

- Overall, 123 BCMA-naive patients were treated with elranatamab (**Supplementary Table 1**)
  - Median age 68.0 years; 55.3% male
  - Race: 7.3% African American or Black, 13.0% Asian, 58.5% White, and the rest (21.1%) unknown/not reported
  - Patients were heavily pretreated: median 5 prior lines of therapy and 96.7% with triple-class refractory disease
- At data cutoff, 20 (16.3%) patients were still receiving treatment
- In patients without progressive disease by BICR and still on treatment at the start of cycle 7 (n=64), 90.6% fulfilled the protocol criteria to switch to Q2W dosing at C7D1
- 58 patients switched to Q2W dosing; the median duration of Q2W dosing was 13.4 (range, 0.03-25.89) months
- Of 43 responding patients who completed ≥6 cycles of Q2W dosing, 28 patients switched to Q4W dosing; the median duration of Q4W dosing was 12.0 (range, 1.87-14.29) months
  - Among the remaining 15 patients, reasons for not switching were: timing of the protocol amendment that enabled Q4W dosing (n=10), treatment hold (n=2), or unknown (n=3)

EFFICACY

- With extended follow-up, ORR per BICR was 61.0% (≥CR, 37.4%)
  - sCR, 16.3%; CR, 21.1%; VGPR, 18.7%; PR, 4.9%
  - Minimal residual disease (MRD) negativity (10^{-5}) rate was 90.3% in patients with CR or better who were evaluable for MRD (n=31)
- Median DOR was not reached (NR; 95% CI, 29.4-not evaluable [NE]; **Figure 1**)
- Median PFS was 17.2 (95% CI, 9.8-NE) months (**Figure 2**)
- Median OS was 24.6 (95% CI, 13.4-NE) months (**Figure 3**)
- Among responders per BICR who switched to Q4W dosing ≥6 months before the data cutoff (n=27), 25 (92.6%) maintained their response ≥6 months after the switch, including 22 (88.0%) who maintained ≥CR
- 1 (3.7%) patient had progressive disease (per IMWG criteria in ≥1 assessment), and 1 (3.7%) patient permanently discontinued elranatamab within 6 months after the switch to Q4W

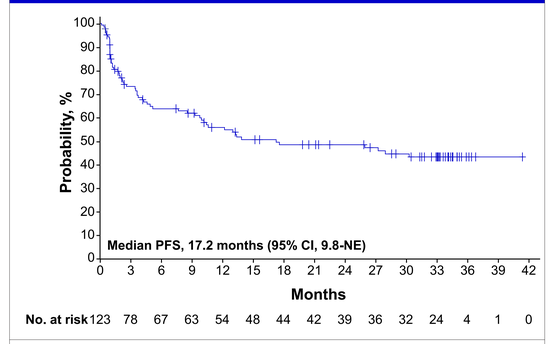
Figure 1. Duration of response



No. at risk													
Pts with OR	75	70	65	57	50	45	41	39	37	32	27	11	1	0
Pts with ≥CR	46	46	46	43	40	36	35	35	33	28	23	11	1	0
Pts with ≥VGPR	69	67	62	55	49	44	41	39	37	32	27	11	1	0

CR=complete response; DOR=duration of response; mo=month; NE=not evaluable; NR=not reached; OR=objective response; pts=patients; VGPR=very good partial response

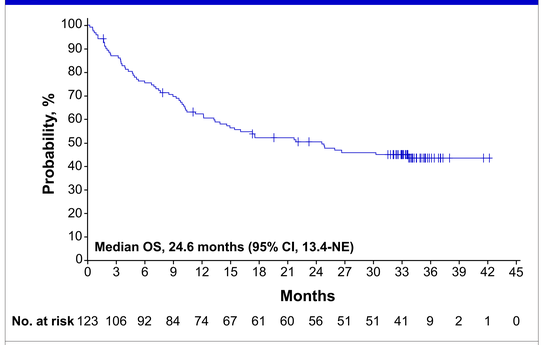
Figure 2. Progression-free survival



No. at risk	123	78	67	63	54	48	44	42	39	36	32	24	4	1	0

NE=not evaluable; PFS=progression-free survival

Figure 3. Overall survival



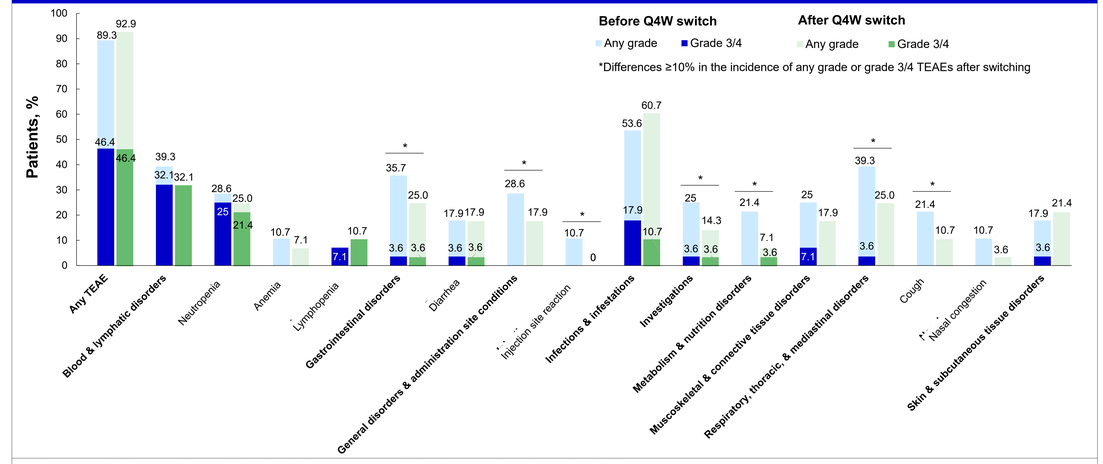
No. at risk	123	106	92	84	74	67	61	60	56	51	51	41	9	2	1	0

NE=not evaluable; OS=overall survival

SAFETY

- No new safety signals were observed with extended follow-up (**Supplementary Table 2**)
  - Infections (any grade, 70.7%; grade 3/4, 41.5%; grade 5, 7.3%), cytokine release syndrome (57.7%), and immune effector cell associated–neurotoxicity syndrome (4.9%)
- There were 3 new deaths with ≈6 more months of follow-up since the last report[3], including 1 each due to progressive disease, treatment toxicity, and unknown reason
- The incidence and severity of treatment-emergent AEs up to 6 months before and after switching to Q4W dosing are presented in **Figure 4**

Figure 4. Most common TEAEs before and after the switch to Q4W dosing[a]



[a] TEAEs occurring in ≥20% of patients at the level of SOC and in ≥10% of patients at the level of PT up to 6 months before or after switching to Q2W dosing
PT=preferred term; Q4W=once every 4 weeks; SOC=system organ class; TEAE=treatment-emergent adverse event