Cost-of-Care Comparison of Elranatamab-bcmm and Teclistamab-cqyv in Adult Patients With Relapsed or Refractory Multiple Myeloma (RRMM)

Objectives



Elranatamab-bcmm and teclistamab-cqyv are bispecific antibodies that were granted FDA accelerated approval for the treatment of adult patients with RRMM based on high and durable response rates. While clinical studies showed that median PFS was 17.2 months with elranatamab-bcmm and 11.3 months with teclistamab-cqyv, economic impact data associated with these treatments are absent. A cost-of-care analysis was conducted to estimate the cost of treating patients with elranatamabbcmm vs teclistamab-cqyv over a 12-month period

Conclusions



This analysis estimated a lower total cost of care and cost per median month of PFS with elranatamab-bcmm compared with teclistamabcqyv. It suggests that elranatamab-bcmm may be an important treatment option for patients with RRMM in the US. Updated evaluations, including adjustments for differences in patient characteristics, are needed to further support cost-reducing strategies



Electronic Poster

Please scan this Quick Response (QR) code with your smartphone app to view this poster. If you do not have a smartphone, access the poster via the internet at: https://scientificpubs.congressposter.com/p/dhz0ivokodkkccx7

References: 1. Kazandjian D. Semin Oncol 2016;43:676-681. 2. Raje N, et al. Blood Cancer J 2023;13:41. **3.** StatPearls. Accessed April 15, 2024. https://www.ncbi.nlm.nih.gov/books/NBK592405/. 4. Institute for Clinical And Economic Review. Accessed December 1, 2023. https://icer.org/wpcontent/uploads/2020/10/ICER Multiple-Myeloma Final-Report Unredacted 112222.pdf. 5. Elrexfio (elranatamab-bcmm). Prescribing information. Pfizer; 2023. 6. Tecvayli (teclistamab-cqyv). Prescribing information. Janssen; 2024. 7. Lesokhin AM, et al. Nat Med 2023;29:2259-2267. 8. Moreau P, et al. N Engl J Med 2022;387:495-505. **9.** Sidana S, et al. Hemasphere. 2023;7(suppl):e62475d0. Abstract P879. 10. Micromedex. Accessed December 1, 2023. https://www.micromedexsolutions.com. 11. Centers for Medicare & Medicaid Services. Physician Fee Schedule. Accessed January 31, 2024. https://www.cms.gov/medicare/payment/fee-schedules/physician. 12. Johnson & Johnson. Accessed April 1, 2024. https://www.jnj.com/media-center/press-releases/tecvayli-teclistamab-cqyv-biweeklydosing-approved-by-the-u-s-fda-for-the-treatment-of-patients-with-relapsed-or-refractory-multiplemyeloma. 13. ClinicalTrials.gov. Accessed April 22, 2024. https://www.clinicaltrials.gov/ct2/show/NCT04649359. 14. Usmani SZ, et al. J Clin Oncol 2023;41(suppl 16):8034.

Acknowledgments: This study was sponsored by Pfizer. Editorial support was provided by Kerry Garza, PhD, of Nucleus Global and funded by Pfizer.

Disclosures: BS has participated on advisory boards for Pfizer. YL and YH have received research funding from Pfizer. RS, AS, DH, JH, and PH are employed by and hold stock options for Pfizer. Contact: Bhavesh Shah, bhavesh.shah@bmc.org

Copyright ©2024. All rights reserved.

Bhavesh Shah¹, Rickard Sandin², Yun Liu³, Yannan Hu³, Alexander Schepart⁴, David Hughes⁴, Jim Hart⁴, Patrick Hlavacek⁴

¹ Boston Medical Center, Boston, MA, USA; ² Pfizer AB, Stockholm, Sweden; ³ Cytel, Rotterdam, the Netherlands; ⁴ Pfizer Inc, New York, NY, USA

Background

- MM is an incurable hematologic malignancy. It is the second most common hematologic malignancy and the 14th most common cancer in the US,² accounting for an estimated 1.8% of all new cancer cases (35,730) and 2.1% of cancer deaths (12,590) in the US in 2023³
- Most patients with MM eventually experience relapse and/or refractory disease (ie, RRMM).^{2,3} The survival of the RRMM population decreases with increasing lines of therapy⁴
- Elranatamab-bcmm⁵ and teclistamab-cqyv⁶ are B-cell maturation antigen (BCMA)-directed bispecific antibodies approved by the US Food and Drug Administration (FDA) for the treatment of adult patients with RRMM who have received ≥4 prior lines of therapy, including a proteasome inhibitor, an immunomodulatory agent, and an anti-CD38 monoclonal antibody (ie, tripleclass exposed patients with MM [TCEMM]). Proven clinical efficacy of elranatamab-bcmm and teclistamab-cqyv has been demonstrated in the MagnetisMM-3⁷ and MajesTEC-1 trials,^{8,9} respectively
- No previous study has compared the economic impact associated with elranatamab-bcmm vs that of teclistamab-cqyv. The current analysis compared the cost of care of treating TCEMM with elranatamab-bcmm vs teclistamab-cqyv

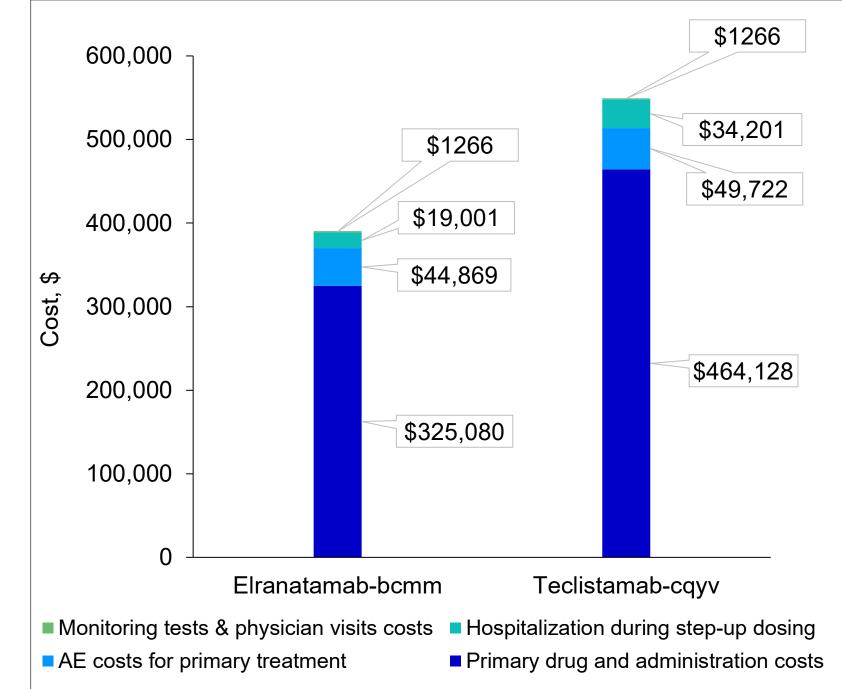
Methods

- A cost-of-care analysis was conducted to compare the total cost of care and the cost per median month of progression-free survival (PFS) for elranatamab-bcmm and teclistamab-cqyv over a 12-month period
- Efficacy and safety inputs were based on clinical data from MagnetisMM-3 (Cohort A)⁷ and MajesTEC-1.^{8,9} Mean PFS and overall survival (OS) were estimated based on Weibull curves fitted to the reported Kaplan-Meier curves
- Mean treatment duration (TD) was estimated based on the reported median TD from the 2 clinical trials, 7,8 assuming exponential distribution
- Cost inputs were obtained from the US prescribing information,^{5,6} US government databases,^{10,11} and published literature. Drug costs in the analysis were adjusted for relative dose intensity (RDI%) and switching to biweekly dosing.^{5,9,12} Disease management costs included hospitalization during step-up dosing, physician visits, and monitoring tests (biochemistry and complete blood count). Grade 3/4 adverse events (AEs) and allgrade cytokine release syndrome and immune effector cell-associated neurotoxicity syndrome (ICANS) were considered
- The outcomes included total cost of care calculated based on the estimated mean OS, PFS, and TD, cost per patient per month (PPPM) and cost per median month of PFS (ie, the total cost divided by the median PFS for each treatment as reported in the trial [elranatamab-bcmm, 17.2 months⁷; teclistamab-cqyv, 11.3 months⁹])
- Sensitivity analyses were conducted based on median estimates: OS (21.9 months for both), PFS (17.2 vs 11.3 months) and TD (5.6 vs 8.5 months) as reported in the clinical trials for elranatamab-bcmm⁷ and teclistamab-cqyv,^{8,9} respectively

Results

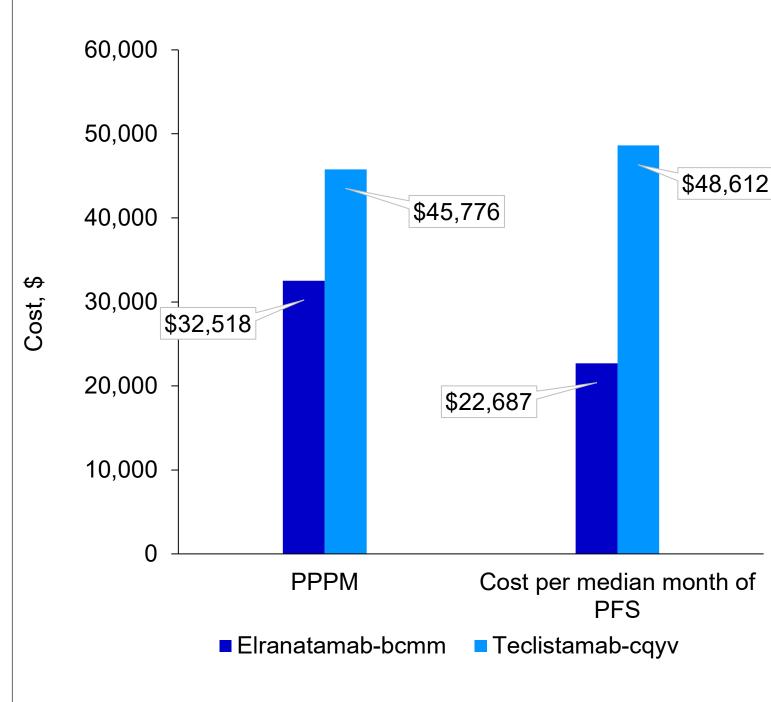
- Over a 12-month period, elranatamab-bcmm showed lower total and PPPM costs (\$390,216 and \$32,518) compared with teclistamab-cqyv (\$549,317 and \$45,776) (Table 1 and Figure 1). Cost per median month of PFS was also lower for elranatamab-bcmm (\$22,687) than for teclistamab-cqyv (\$48,612) (**Table 1 and** Figure 2)
- Primary drug and administration costs accounted for the majority of the total costs, followed by AE costs and hospitalization costs during step-up dosing
- Primary drug cost (including drug acquisition and administration costs) were lower with elranatamab-bcmm and can be explained by no drug wastage for treatment dose, biweekly dosing after week 24,5 shorter estimated mean TD (elranatamab-bcmm 8.01 vs teclistamab-cqyv 12.26 months), and lower RDI% (elranatamab-bcmm 85.5% 13 vs teclistamab-cqyv 93.7%8). Switching to biweekly dosing was allowed in teclistamabcqyv patients.⁹ However, median time to switching was 12.7 months (phase 2)¹⁴; therefore, no cost reductions were generated within the 12-month period assessment
- Lower hospitalization cost of elranatamab-bcmm vs teclistamab-cqyv during step-up dosing (\$19,001 vs \$34,201) was explained by fewer hospitalization days (5 vs 9, assumed based on the FDA labels^{5,6}) during step-up dosing
- Costs of AEs and monitoring were similar between the regimens (\$44,869 vs \$49,722; \$1266 for both regimens)

Figure 1. Cost of care by cost category over 12 months



AE= adverse event





PFS=progress-free survival; PPPM=per patient per month

 Similar to the results in the base-case analysis, the sensitivity analysis showed that elranatamab-bcmm exhibited lower total cost, cost PPPM, and lower cost per median month of PFS compared with teclistamab-cqyv (**Table 2**)

Table 1. Cost-of-care results of elranatamab-bcmm and teclistamab-cqyv over 12 months

Costs, \$	Elranatamab-bcmm	Teclistamab-cqyv
Primary drug and administration costs	325,080	464,128
AE costs for primary treatment	44,869	49,722
Hospitalization during step-up dosing costs	19,001	34,201
Monitoring tests and physician visits costs	1266	1266
Subsequent treatment and administration costs	0	0
Total costs	390,216	549,317
PPPM costs	32,518	45,776
Total cost per median month of PFSa	22,687	48,612

^a This is the total cost divided by the median PFS. Median PFS (17.2 vs 11.3) was sourced from clinical trials.^{7,9} Total cost of care was calculated based on estimated mean OS, PFS, and TD. AE=adverse event; OS=overall survival; PFS=progression-free survival; PPPM=per patient per month; TD=treatment duration.

Table 2. Sensitivity analysis: cost-of-care results based on median OS, PFS, and TD over 12 months

Costs, \$	Elranatamab-bcmm	Teclistamab-cqyv
Primary drug and administration costs	264,946	329,762
AE costs for primary treatment	44,869	49,722
Hospitalization during step-up dosing costs	19,001	34,201
Monitoring tests and physician visits costs	1266	1266
Subsequent treatment and administration costs	0	12,088
Total costs	330,082	427,039
PPPM costs	27,507	35,587
Total cost per median month of PFS ^a	19,191	37,791

^a This is the total cost divided by the median PFS. Median PFS (17.2 vs 11.3) was sourced from clinical trials.^{7,9} In this sensitivity analysis, the total cost of care was calculated based on median OS, PFS, and TD. AE=adverse event; OS=overall survival; PFS=progression-free survival; PPPM=per patient per month; TD=treatment duration.