Budget Impact Model (BIM) of Belantamab Mafodotin (Belamaf) in Combination With Bortezomib and Dexamethasone (BVd) in Patients With Relapsed/Refractory Multiple Myeloma (RRMM) in the United States (US)

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The addition of BVd is projected to have negligible budget impact, with modest budget savings by Year 3. The projected budget savings were due to reduced AE-related costs and delayed subsequent treatments, which indicate a favorable safety profile and better efficacy. Addition of BVd to formularies for 3L+ RRMM is a manageable financial consideration for payers

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Background

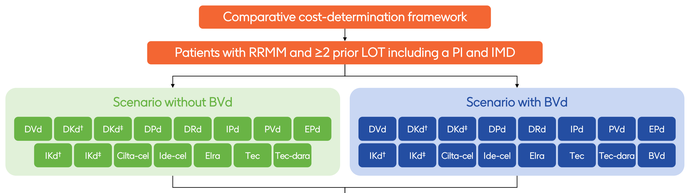
- MM is a hematologic malignancy of plasma cells, with substantial economic burden due to the relapsing nature of the disease, resulting in receipt of multiple therapies over time[1–3]
- Treatment options have significantly expanded, including the use of BCMA-targeting therapies, which have demonstrated transformative survival benefits[4–6]; however, decisions on treatment regimens remain complex[7]
- Based on superior efficacy shown vs DVd in the phase 3 DREAMM-7 trial,[6] the BCMA-targeting antibody-drug conjugate belamaf was approved in the US in combination with Vd (BVd), for treatment of adult patients with RRMM who received ≥2 prior LOT (3L+) including a PI and IMD[8]
- A Budget Impact Model (BIM) was developed to allow managed care organization (MCO) decision makers to assess the potential budget impact of adding belamaf to formularies and associated direct medical costs to their health plan's budget for treatment of 3L+ RRMM

Aims

Assess the budgetary impact of BVd on payer formularies by estimating changes in costs incurred by MCOs without and with uptake of BVd in Years 1–3 of treatment

Methods

Figure 1: **BIM methodology**



Model inputs	
Type	**Source**
Median duration of therapy (mDoT): During this time, treatment-related costs are calculated (drug acquisition, administration, monitoring, and treating AEs [applied in the first year only]). Median time to next treatment (mTTNT): At this timepoint subsequent treatments begin, and costs associated with subsequent treatment accrue for the mDoT of subsequent treatment and/or until median overall survival (mOS) is reached	Published clinical trials for each included regimen and from the DREAMM-7/DREAMM-8 trials for BVd, DVd, and PVd[4,6,9–28]
Drug costs: Wholesale Acquisition Costs	Medi-Span Price Rx, February 2026
Administration costs: All costs associated with the route of administration during mDoT, including bridging therapies for CAR-T. Included IVIG as pretreatment and Q4W during the analysis for bispecific/CAR-T	CMS Medicare Physician Fee Schedule[29] (professional price ratio of 1.24 applied to account for commercial-based costs)[30]
Monitoring costs: For all treatments, MM monitoring included serum protein electrophoresis, serum immunofixation electrophoresis, quantitative immunoglobulins, serum free light chain, complete blood count, and comprehensive metabolic panel. For carfilzomib, regular electrocardiogram and blood pressure measurement. For belamaf, eye care professional and slit lamp exam per label requirement. For CAR-T and bispecific antibodies, PET, bone marrow aspiration, and antibody testing once following administration	CMS Medicare Clinical Laboratory Fee Schedule[31] (professional price ratio of 1.24 applied to account for commercial-based costs)[30]
AE-related costs: Accrued in the first cycle after treatment and applied in the first year only. Included grade ≥3 AEs with clinical trial incidence ≥10%, grade ≥2 CRS, and belamaf ocular AEs at any grade (including ophthalmologist visit and slit-lamp exam costs)	Healthcare Cost and Utilization project[32] (inpatient services price ratio of 1.89 applied to account for commercial-based costs)[30]

Drug acquisition, administration, monitoring, AE, subsequent treatment, and end-of-life costs were modeled

Costs were inflated to 2025 US dollars using the latest available inflation rates as of February 2026

*Once-weekly carfilzomib. †Twice-weekly carfilzomib

Table 1: **Market shares***

	Current market share among newly eligible patients (%)			Projected market share among newly eligible patients (%)		
Treatment	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3
BVd	0.0	0.0	0.0	12.0	22.3	33.1
DKd†‡	2.7	2.9	3.0	2.2	1.7	1.2
DPd	34.5	33.5	32.4	27.4	20.0	12.5
DRd	3.7	2.3	2.3	2.9	1.4	0.9
DVd	2.4	2.6	2.8	1.9	1.5	1.1
EPd	4.1	4.3	5.0	3.2	2.6	1.9
IKd†‡	3.4	3.6	4.1	2.7	2.1	1.6
IPd	0.5	0.6	0.7	0.4	0.3	0.3
PVd	7.3	5.7	3.6	5.8	3.4	1.4
Cilta-cel	17.1	20.2	22.3	17.1	20.2	22.3
Ide-cel	4.1	4.1	3.3	4.1	4.1	3.3
Elranatamab	1.3	1.7	2.3	1.3	1.7	2.3
Teclistamab	18.0	16.9	14.6	18.0	16.9	14.6
Tec-dara	0.9	1.7	3.5	0.9	1.7	3.5
Total	100.0	100.0	100.0	100.0	100.0	100.0

*Baseline market shares were obtained from a market research report from Clarivate (data on file). Shares were assumed to be 50%/50% between once†- and twice-weekly‡ carfilzomib options

- Market shares for BVd were taken proportionally from all comparators except CAR-T/BsAb, as the introduction of belamaf is not expected to change the market share of these therapies due to differences in clinical trial populations
- Results are reported from a commercial perspective for patients aged 18–64 years

Results

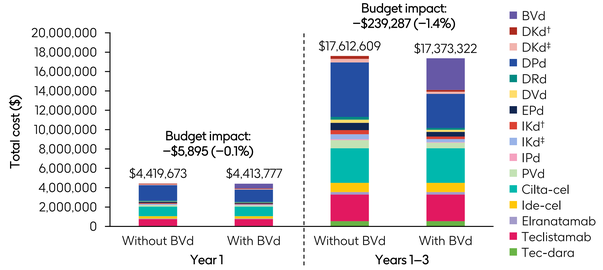
Table 2: **Population estimates**

Parameter	Year 1	Year 2	Year 3
Covered lives (assumption)	1,000,000	1,000,000	1,000,000
Adults (aged 18–64 years)	660,978	660,978	660,978
Prevalent patients with MM	148	148	151
Incident patients with MM	0	3	3
Treatable MM patients*	74	75	76
Patients on 3L+ of therapy	8	8	8
Newly eligible patients for belamaf treatment	7	8	8

*The treatable population reflects the estimated number of patients who may benefit from a new or existing therapy, based on disease epidemiology,[33] treatment guidelines, and market data sourced from Clarivate market research (data on file), and is consistent with published projections[34]

- Among the hypothetical commercial population of 1,000,000 patients, 7 in Year 1 and 8 in Years 2 and 3 were aged 18–64 years, had 3L+ RRMM, and were newly eligible for BVd

Figure 2: **Current vs projected total costs for Year 1 and Years 1–3***



*No cost-sharing and vial wastage with IV drugs was assumed; average dosing was used for belamaf. Dosing and administration for comparators matched prescribing information and reported RDI. †Once-weekly carfilzomib. ‡Twice-weekly carfilzomib

Figure 3: **Current vs projected PMPM costs for Year 1 and Years 1–3***

*No cost-sharing and vial wastage with IV drugs was assumed; average dosing was used for belamaf. Dosing and administration for comparators matched prescribing information and reported RDI. †Once-weekly carfilzomib. ‡Twice-weekly carfilzomib

- In Year 1 of treatment, BVd uptake decreased total costs and PMPM costs by 0.1%
- In Years 1–3 of treatment, BVd uptake decreased total costs and PMPM costs by 1.4%

Table 3: **Detailed cost results over Years 1–3**

Costs	Current (without BVd)	Projected (with BVd)	Difference
Drug acquisition	$11,849,438	$12,073,887	+$224,449 (1.9%)
Administration	$1,010,597	$1,012,951	+$2,354 (0.2%)
Monitoring	$153,551	$162,562	+$9,012 (5.9%)
Adverse event	$1,317,798	$1,274,805	−$42,993 (3.3%)
Subsequent treatment	$3,130,829	$2,707,397	−$423,431 (13.5%)
End of life	$150,397	$141,719	−$8,677 (5.8%)
Total	$17,612,609	$17,373,322	−$239,287 (1.4%)

- Over 3 years, there is an increase in drug acquisition, administration, and monitoring costs when belamaf is an available treatment option; however, these incremental costs were offset by savings across other cost categories including subsequent treatment (acquisition and administration costs based on real-world utilization data and included treatment combinations with utilization of 2.5% or higher), AEs, and end of life costs, leading to cost savings of 1.4%

Limitations

- All progressions, subsequent treatments, and mortalities were simplified to mDoT, mTTNT, and mOS; however, the impact of this simplification is expected to be minimal
- Sourcing clinical results from clinical trials with comparable patient populations was not always possible
- Projected market shares were limited to estimates based on current comparator utilization
- Use of Commercial-to-Medicare cost ratios to inflate commercial costs is a limitation, as these are averages over a variety of treatments

Conclusions

As treatment options for RRMM continue to expand and include transformational survival benefits with BCMA-directed therapies, cost considerations have become increasingly important

This BIM indicated that BVd uptake is projected to have a negligible budget impact in Year 1 (−0.1% PMPM), with modest budget savings by Year 3 (−1.4% PMPM). The projected budget savings were due to reduced AEs and subsequent therapy costs, which may be related to a favorable safety profile and high efficacy

Addition of BVd to formularies for 3L+ RRMM is a manageable financial consideration for payers

Abbreviations

3L+, third-line or later; AE, adverse event; BCMA, B-cell maturation antigen; BIM, Budget Impact Model; belamaf, belantamab mafodotin; BsAbs, bispecific antibodies; BVd, belantamab mafodotin, bortezomib, dexamethasone; CAR-T, chimeric antigen receptor T-cell; Cilta-cel, ciltacabtagene autoleucel; CMS, Centers for Medicare & Medicaid Services; CRS, cytokine release syndrome; Dara, daratumumab; DKd, daratumumab, carfilzomib, dexamethasone; DPd, daratumumab, pomalidomide, dexamethasone; DRd, daratumumab, lenalidomide, dexamethasone; DVd, daratumumab, bortezomib, dexamethasone; Elra, elranatamab; EPd, elotuzumab, pomalidomide, dexamethasone; Ide-cel, idecabtagene vicleucel; IKd, isatuximab, carfilzomib, dexamethasone; IMD, immunomodulatory drug; IPd, isatuximab, pomalidomide, dexamethasone; IV, intravenous; IVIG, intravenous immunoglobulin; LOT, line of therapy; MCO, managed care organization; mDoT, median duration of therapy; MM, multiple myeloma; mOS, median overall survival; mTTNT, median time-to-next treatment; PET, positron emission tomography; PI, proteasome inhibitor; PMPM, per-member-per-month; PVd, pomalidomide, bortezomib, dexamethasone; RDI, relative dose intensity; RRMM, relapsed/refractory multiple myeloma; Tec, teclistamab; US, United States; Vd, bortezomib and dexamethasone.

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NB, MP, YS, TP, TB, MK, and JO are employees of and hold financial equities in GSK. RZ and CF are employees of IQVIA. NN is an employee of GSK and holds financial equities in GSK and McKesson.

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