

# Belantamab Mafodotin, Bortezomib, and Dexamethasone vs Daratumumab, Bortezomib, and Dexamethasone in Relapsed/Refractory Multiple Myeloma: Overall Survival Analysis and Updated Efficacy Outcomes of the Phase 3 DREAMM-7 Trial

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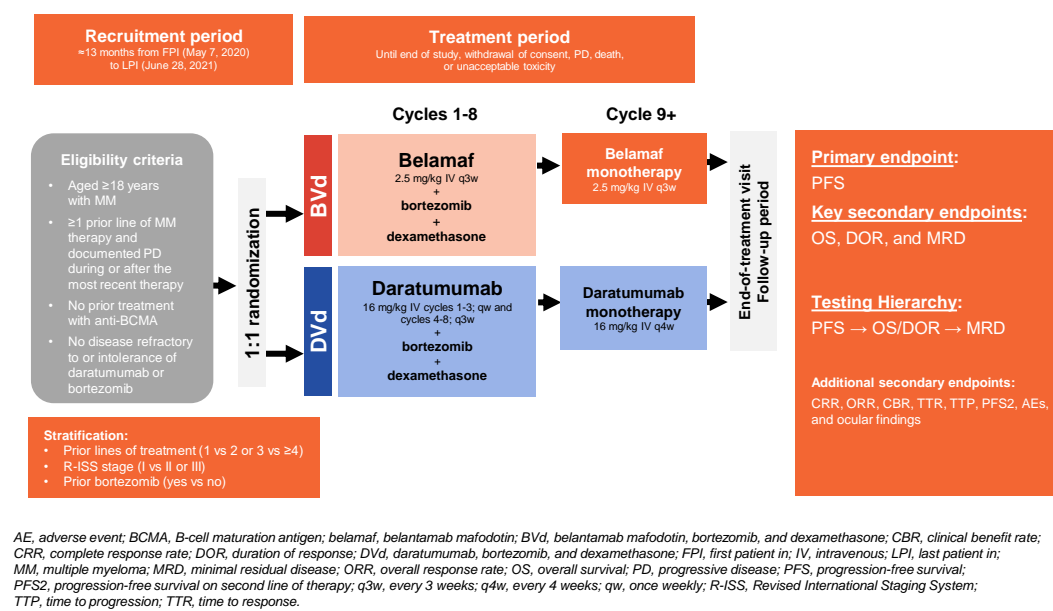
# Introduction

- Patients with MM often have disease that becomes refractory to first-line triplet or quadruplet regimens and relapses; therefore, efficacious second-line combinations that incorporate new therapy classes are needed<sup>1,2</sup>
- The DREAMM-7 trial (NCT02426047) evaluated the anti-BCMA monoclonal antibody-drug conjugate belamaf in combination with bortezomib and dexamethasone vs DvD in patients with RRMM who had received  $\geq 1$  prior line of therapy<sup>3</sup>
- At the data cutoff of October 2, 2023, and a median follow-up of 28.2 months (range, 0.1-40.0 months), the primary endpoint was met, with a median PFS (95% CI) of 36.6 months (28.4 months, not reached) with BvD and 13.4 months (11.1-17.5 months) with DvD (HR, 0.41; 95% CI, 0.31-0.53;  $P<.001$ )<sup>3,4</sup>
  - Although median OS was not reached in either arm in this primary analysis, a strong trend in favor of BvD vs DvD was observed, with an HR of 0.57 (95% CI, 0.40-0.80)<sup>3,4</sup>
  - We report updated efficacy and safety from DREAMM-7, including a prespecified OS analysis, at a median follow-up of 39.4 months (data cutoff, October 7, 2024)

## Methods

- DREAMM-7 is an ongoing, global, randomized, open-label phase 3 study<sup>2</sup> (**Figure 1**)
- Eligible patients with MM who experienced progression on or after  $\geq 1$  prior line of therapy were randomized 1:1 to Bvd or Dvd for 8 cycles, followed by belamaf or daratumumab monotherapy at cycle 9 and beyond
- The primary endpoint was IRC-assessed PFS with key secondary endpoints of OS, DOR, and MRD negativity in patients with  $\geq$  CR, which was assessed by next-generation sequencing at a sensitivity of  $10^{-3}$ ; additional secondary endpoints included PFS2, response rates, and safety outcomes
  - AEs, including ocular adverse reactions, were graded in accordance with the NCI CTCAE (version 5.0)
- OS was compared between treatment groups with a stratified log-rank test, with HRs and corresponding 95% CIs estimated using a stratified Cox proportional-hazards model<sup>3</sup>
  - The Kaplan-Meier method was used to estimate the median OS; corresponding 95% CIs were calculated with the Brookmeyer-Crowley method

Figure 1: DREAMM-7 study design and endpoints<sup>3</sup>



AE, adverse event; BCMA, B-cell maturation antigen; belamaf, belantamab mafodotin; BVD, belantamab mafodotin; bortezomib, and dexamethasone; CBR, clinical benefit rate; CRR, complete response rate; DOR, duration of response; DZL, daratumumab, bortezomib, and dexamethasone; FPI, first patient in; IV, intravenous; LPI, last patient in; MM, multiple myeloma; MRD, minimal residual disease; ORR, overall response rate; OS, overall survival; PD, progressive disease; PFS, progression-free survival; PFS2, progression-free survival on second line of therapy; q3w, every 3 weeks; q4w, every 4 weeks; qw, once weekly; R-ISS, Revised International Staging System; TTR, time to progression; TTR, time to response.

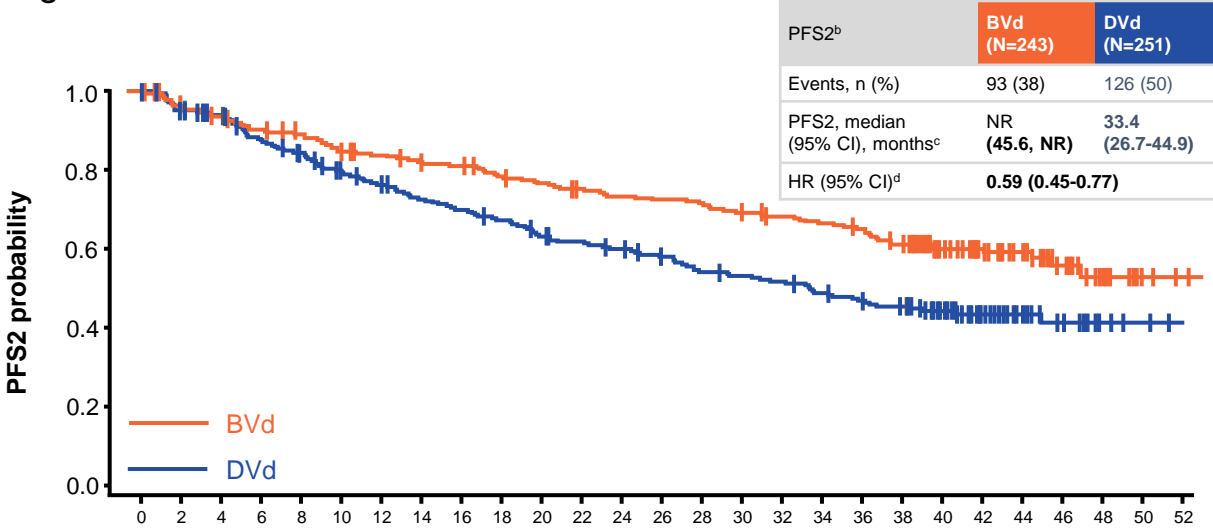
## Results

### Patient Disposition and Baseline Characteristics

- From May 7, 2020, through June 28, 2021, 494 patients were randomized to receive BvD (N=243) or DVd (N=251)
  - More patients remained on treatment with belamaf (25%) vs daratumumab (15%), with progressive disease being the most common reason for discontinuation in both arms
- At data cutoff, the median follow-up was 39.4 months (range, 0.1-52.3 months), defined as the time from randomization to last contact or death
- As previously reported in the primary analysis,<sup>3</sup> baseline characteristics and prior treatments were well balanced across both arms
  - Approximately half of patients in each arm received 1 prior line of therapy; 52% of patients in each arm received prior lenalidomide and approximately one-third of patients had disease refractory to lenalidomide at baseline in both arms

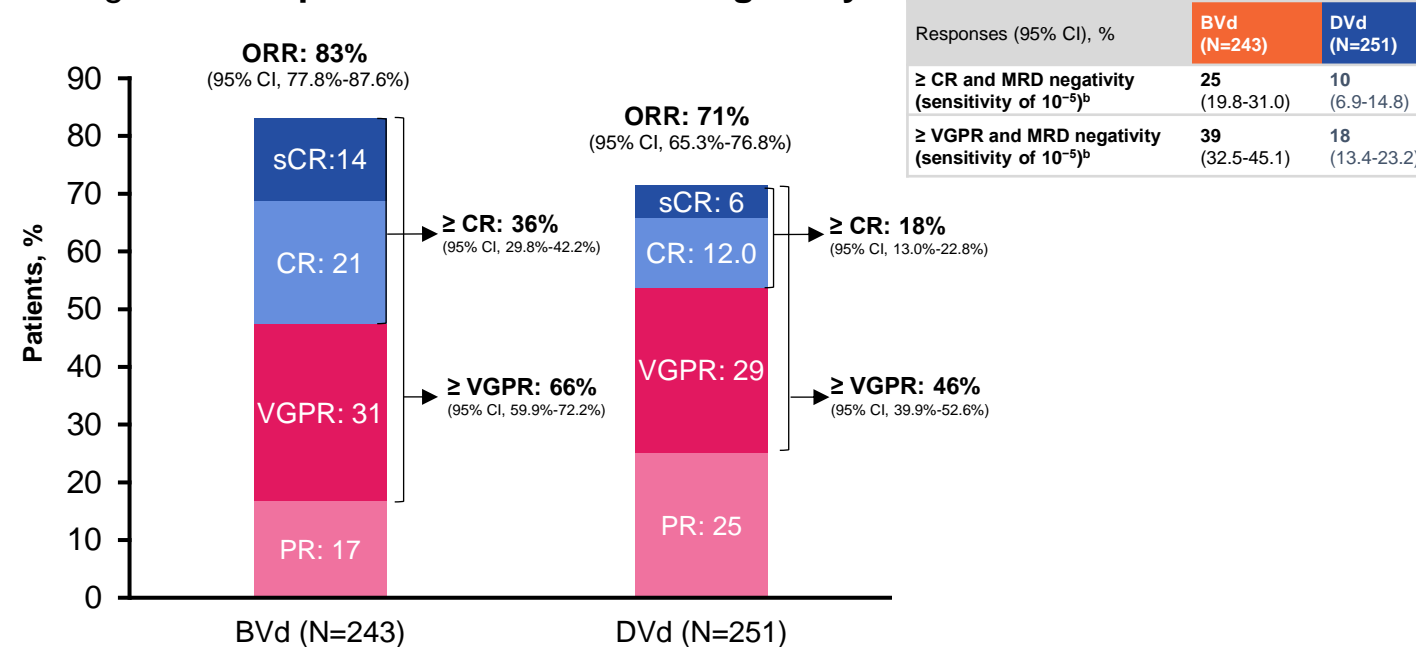
### Efficacy and Subsequent Therapies

- BVd resulted in an early, sustained, and statistically significant OS benefit vs DVd (HR, 0.58; 95% CI, 0.43-0.79;  $P=.00023$ ) (**Figure 2**)
- Although median OS was not reached in either arm, simulation was used to calculate a predicted median OS, which is 84 months with BVd and 51 months with DVd (post hoc analysis using the observed data at this interim analysis, with 39.4-month median follow-up to extrapolate time to death in ongoing censored patients; subject to change as data mature)
- Due to earlier disease progression, more patients in the DVd arm received subsequent therapies than patients in the BVd arm (52% vs 36%)
  - While those in the DVd arm vs BVd arm proceeded to receive more immunomodulators (37% vs 25%), proteasome inhibitors (32% vs 19%), and steroids (43% vs 32%) as subsequent therapy, more patients in the BVd arm vs DVd arm initiated monoclonal antibody therapy (26% vs 10%)
  - In the BVd arm, the most common first subsequent therapies after study treatment were anti-CD38 monoclonal antibodies (daratumumab and isatuximab), pomalidomide, and lenalidomide; in the DVd arm, they were lenalidomide, carfilzomib, and pomalidomide
- PFS2 favored BVd vs DVd (HR, 0.59; 95% CI, 0.45-0.77), demonstrating a maintained treatment benefit with BVd following subsequent antineoplastic therapy (**Figure 3**)
- BVd maintained a greater depth of response vs DVd (**Figure 4**)
  - Due to the prespecified testing hierarchy and with the significant OS benefit at this data cutoff, MRD-negativity rates from the primary analysis could be formally compared and can now be considered statistically significant in favor of BVd vs DVd<sup>3</sup>
    - With BVd vs DVd, rates of  $\geq$  CR and MRD negativity were 24.7% vs 9.6% ( $P<.00001$ ), respectively, and rates of  $\geq$  VGPR and MRD negativity were 38.7% vs 17.1% ( $P<.00001$ )
- Median DOR with BVd was more than double that with DVd (40.8 months vs 17.8 months) (**Figure 5**)

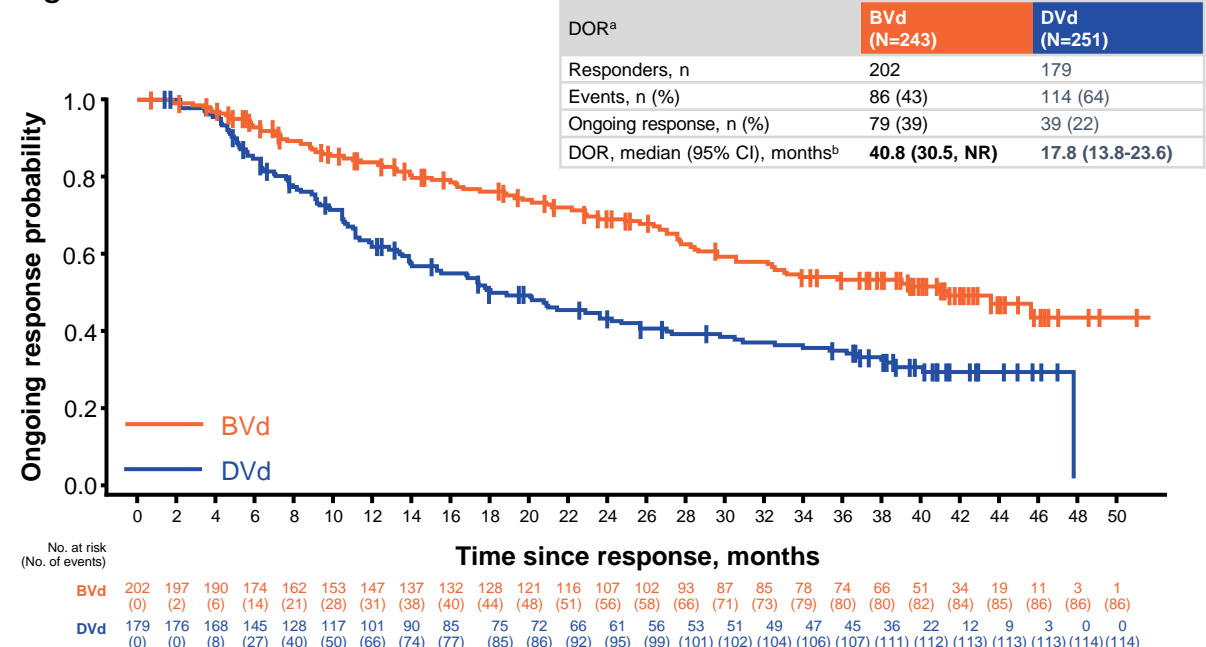
Figure 3: **PFS2<sup>a</sup>**

<sup>a</sup> PFS2 as defined as time from randomization to disease progression after initiation of new antiyeloma therapy or death from any cause, whichever was earliest. <sup>b</sup> Two patients in the ITT population were randomized, not treated, rescanned, and randomized. They are counted as 4 unique patients in this output. <sup>c</sup> Cys were estimated using the Broekman-Crawley method. <sup>d</sup> HRs were estimated using a Cox proportional hazards model stratified by the number of lines of prior therapy (1 vs 2 or 3 vs 24), prior bortezomib (yes vs no), and R-ISS stage at screening (I vs II or III), with a covariate of treatment.

**Figure 4: Response rates and MRD negativity<sup>a</sup>**



BYD, belatacept; mafosfodol, bortezomib; and dexaamethasone, CR, complete response; DVID, daratumumab, bortezomib, and dexaamethasone; ITT, intention to treat; MRD, minimal residual disease; NGS, next-generation sequencing; ORR, overall response rate; PR, partial response;  $\leq$ CR, stringent complete response; VGPR, very good partial response.

Figure 5: **DOR**

\* Two patients in the ITT population were randomized, not treated, rescreened, and rerandomized. They are counted as 4 unique patients in this output. <sup>a</sup> CIs were estimated using the Brookmeyer-Crowley method.

## Conclusions

- BVd demonstrated a statistically significant and clinically meaningful improvement in OS compared with DVd in patients with RMM from  $\geq 1$  prior line of therapy (HR, 0.58; 95% CI, 0.43-0.79;  $P=0.0023$ )
  - OS benefit with BVd was early and sustained
  - Although median OS was not reached, predicted median OS using modeling is 84 months with BVd and 51 months with DVd
  - MRD-negativity rates in favor of BVd from the primary analysis can now be considered statistically significant<sup>3</sup>
- Treatment benefits with BVd were also maintained after subsequent antimyeloma therapy, with an HR (95% CI) for PFS2 of 0.59 (0.45-0.77)
- BVd maintained durable and deep responses and continued to result in greater than double the  $\geq$  CR rates, MRD-negativity rates, and median DOR compared with DVd, with extended follow-up
- The safety profile of BVd was consistent with the primary analysis and known profiles of the individual agents<sup>3</sup>
  - Ocular events were generally resolved, were manageable with dose modifications, and led to low treatment discontinuation rates
- The results from this updated analysis of DREAMM-7 further support belamaf as a potential new standard of care for patients with RMM

Table 1: **Safety summary**

	BVD (N=242)	DVD (N=246)
<b>Any AE</b>	242 (100)	246 (100)
Related to any study treatment <sup>a</sup>	242 (100)	234 (95)
<b>Grade 3/4 AE<sup>b</sup></b>	230 (95)	181 (78)
Exposure-adjusted rate (per 100 person-years) <sup>c</sup>	57.17	55.71
Related to any study treatment <sup>a</sup>	222 (92)	166 (67)
<b>AEs leading to permanent discontinuation of any study treatment</b>	77 (32)	47 (19)
Exposure-adjusted rate (per 100 person-years) <sup>c</sup>	19.14	13.71
Related to any study treatment leading to permanent discontinuation of any study treatment <sup>a</sup>	67 (28)	36 (15)
<b>AEs leading to dose reduction</b>	181 (75)	146 (59)
Exposure-adjusted rate (per 100 person-years) <sup>c</sup>	44.99	42.58
<b>AEs leading to dose delay</b>	229 (95)	186 (76)
Exposure-adjusted rate (per 100 person-years) <sup>c</sup>	56.92	54.25
<b>Any SAE</b>	129 (53)	94 (38)
Exposure-adjusted rate (per 100 person-years) <sup>c</sup>	32.07	27.42
Related to any study treatment <sup>a</sup>	50 (21)	32 (13)
<b>Fatal SAEs</b>	26 (11)	20 (8)
Related to any study treatment <sup>a</sup>	7 (3)	2 (<1)
<b>Deaths</b>		
<b>Deaths</b>	69 (29)	101 (41)
<b>Primary cause of death<sup>d</sup></b>		
<b>Cancer</b>	23 (10)	53 (22)
Unequivocally due to myeloma	19 (8)	44 (18)
Equivocally due to myeloma	3 (1)	7 (3)
Other cancer	1 (<1)	2 (<1)
<b>Cardiovascular condition<sup>e</sup></b>	8 (3)	4 (2)
<b>Sepsis</b>	8 (3)	4 (2)
<b>Stroke</b>	0	1 (<1)
<b>Trauma</b>	0	1 (<1)
<b>Other noncardiovascular condition</b>	24 (10)	25 (10)
<b>AEs of clinical interest</b>		
<b>Blood and lymphatic system disorders</b>	<b>All grades</b>	<b>Grade ≥3</b>
Thrombocytopenia <sup>f</sup>	169 (70)	135 (56)
Exposure-adjusted rate (per 100 person-years) <sup>c</sup>	42.01	33.56
Anemia <sup>g</sup>	48 (20)	31 (13)
Neutropenia <sup>h</sup>	45 (19)	34 (14)
Exposure-adjusted rate (per 100 person-years) <sup>c</sup>	11.19	8.45
<b>Infections and infestations</b>	176 (73)	80 (33)
Exposure-adjusted rate (per 100 person-years) <sup>c</sup>	43.75	19.89
Pneumonia <sup>i</sup>	48 (20)	30 (12)
Exposure-adjusted rate (per 100 person-years) <sup>c</sup>	11.93	7.46

AE adverse event; BVd, belatacept maintenance; hz, hertz; and DMS, deuterium mass spectrometry. CTCAE, Common Terminology Criteria for Adverse Events; BVd, daratumumab, bortezomib, and doxorubicin; SA, serious adverse event.

Data are *n* (% unless otherwise noted). \*Related to any study treatment†Includes responses of “yes” and missing responses to the following question: “Is there a reasonable possibility that the AE may be related to any study treatment?” ‡Includes patients who have had a primary grade 3 or 4 exposure-adjusted toxicity were calculated as the total number of patients with an event divided by the total exposure in person-years (per 100 person-years). Total person-years is the sum of all patient exposure calculated as (last date – first date + 1) × 365.25. †The primary cause of death was ascertained for 6 patients in the BVd arm and 13 patients in the DMS arm. †Cardiovascular includes hemorrhage, heart failure, myocardial infarction, and other cardiovascular decompensation. †Graded using CTCAE.

†† Patient count decrease is also included: the percentages of thrombotic/thrombotic events for all grades were 88% and 65% with BVd and DMS, respectively, and for grade 3/4 were 73% and 45%.

Table 2: **BCVA** in patients with normal baseline 20/25 or better

BvD	Bilateral worsening of BCUVA in patients with normal baseline 20/25 or better	
	20/50 or worse <sup>a</sup>	20/20 or worse <sup>a</sup>
Patients, n/N (%)	84/242 (35)	5/242 (2)
Time to onset of first event, median (range), days	79 (16-132)	105 (47-374)
Time to resolution of first event to baseline, median (range) days <sup>b</sup>	64 (8-208)	81 (22-154)
Time to improvement of first event, median (range), days <sup>c</sup>	12 (6-257)	19 (8-26)
First event resolved, n/N (%) <sup>d</sup>	78/84 (93)	4/5 (80)
First event improved, n/N (%) <sup>e</sup>	81/84 (96)	5/5 (100)
Follow-up ended with event ongoing, n/N (%)	2/84 (2)	0/5 (0)

BCVA, best-corrected visual acuity; BVD, befortamib mafodotin, borteozomib, and dexamethasone.

## Abbreviations

AE, adverse event; BCMA, B-cell maturation agent; BCVA, best-corrected visual acuity; belamaf, belantamab mafodotin; BVD, belantamab mafodotin; bortezomib, and dexamethasone; CD, cluster of differentiation; CR, complete response; CTCAE, Common Terminology Criteria for Adverse Events; DOR, duration of response; D<sub>VR</sub>, daratumumab; bortezomib, and dexamethasone; HR, hazard ratio; IRC, independent review committee; MM, multiple myeloma; MRD, minimal residual disease; NCI, National Cancer Institute; OS, overall survival; PFS, progression-free survival; PFS2, progression-free survival on second line of therapy; PR, partial response; RRMM, relapsed/refractory multiple myeloma; SAE, serious adverse event

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## Disclosures

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