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APOLLO Dara-Pd



(1 vs 2-3 vs ≥4) • ISS disease stage (I vs II vs III) Treatment until PD or unacceptable toxicity



APOLLO Dara-Pd



• Median PFS among patients refractory to lenalidomide was 9.9 months for D-Pd and 6.5 months for Pd





ICARIA: Isatuximab + Pd



• Key secondary endpoints: ORR, OS, safety

^aIsatuximab 10 mg/kg IV on d 1, 8, 15, and 22 in the first cycle; d 1 and 15 in subsequent cycles. Pomalidomide 4 mg on d 1-21. Dexamethasone 40 mg for patients aged <75 y and 20 mg for patients aged ≥75 y on d 1, 8, 15, and 22.

1. Richardson PG, et al. ASCO 2019. Abstract 8004; 2. https://clinicaltrials.gov/ct2/show/NCT02990338. Accessed September 6, 2019.

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Richardson PG, et al. ASCO 2019. Abstract 8004.

ICARIA-MM: Response



- Median time to first response: Isa-Pd = 35 days vs Pd = 58 days
- True CR rate in Isa-Pd underestimated because of isatuximab interference with Mprotein measurement

	Isa-Pd (n = 154)	Pd (n = 153)
nCR, %	15.6	3.3

 MRD negativity at 10⁻⁵ (ITT): 5.2% for Isa-Pd vs 0% for Pd

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Richardson PG, et al. Lancet Oncology Feb 2022.



ICARIA-MM Study design



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ICARIA-MM Background and objectives

- A prespecified updated overall analysis at 24 months after the primary analysis demonstrated:¹
 - Median OS of 24.6 months (95% CI: 20.3–31.3) with Isa-Pd and 17.7 months (95% CI: 14.4–26.2) with Pd (HR 0.76; 95% CI: 0.57–1.01)
- This final OS analysis of ICARIA-MM was planned when 220 death events occurred. Efficacy was assessed in randomized patients. Safety was assessed in patients receiving ≥1 study dose







*Cutoff date: January 27, 2022.

[†]One-sided p-value, significance level is set to 0.02.

CI, confidence interval; HR, hazard ratio; Isa-Pd, isatuximab plus pomalidomide and dexamethasone; mOS, median overall survival; OS, overall survival; Pd, pomalidomide and dexamethasone.

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CANDOR (KdD vs Kd in RRMM)

- The CANDOR study previously demonstrated that KdD improved progression-free survival (PFS) vs Kd (HR 0.63, 95% CI 0.46–0.85) in patients with RRMM¹
- This abstract reports updated efficacy and safety outcomes from CANDOR up to the data cut-off of ~36 months after enrollment of the first patient²



Primary endpoint: PFS[§] **Select secondary endpoints:** ORR, MRD-negative CR at 12 months, OS, safety

*Carfilzomib dose was 20 mg/m² on days 1 and 2 of cycle 1. ⁺PO or IV weekly; 20 mg for patients > 75 years. [‡]8 mg/kg on days 1 and 2 of cycle 1; 16 mg/kg weekly thereafter for cycles 1–2; Q2W for cycles 3–6; and Q4W thereafter. [§]Disease progression was determined locally by investigators in an unblinded manner and centrally by the sponsor using a validated computer algorithm (ORCA) in a blinded manner.

CI, confidence interval; CR, complete response; HR, hazard ratio; IV, intravenous; Kd, carfilzomib, dexamethasone; KdD, carfilzomib, dexamethasone, daratumumab; MRD, minimal residual disease; ORCA, Onyx Response Computer Algorithm; ORR, overall response rate; OS, overall survival; PFS, progression-free survival; PO, per oral; PR, partial response; Q2W, once every 2 weeks; Q4W, once every 4 weeks; Ran, randomized; RRMM, relapsed or refractory multiple myeloma.

1. Dimopoulos M, et al. Lancet. 2020;396:186-97. 2. Dimopoulos M, et al. Presented at 62nd ASH Annual Meeting and Exposition; Dec 5–8, 2020; Virtual. Abstract 2325.

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Lancet Oncology. 23(1):65-76, 2022 01

CANDOR (KdD vs Kd in RRMM)



Safety	KdD (n = 312)	Kd (n = 154)
Grade ≥ 3 AEs, %	87.0	75.8
Fatal AEs, [†] %	8.8	4.6
Carfilzomib discontinuation due to AEs, %	26.0	22.2
Exposure-adjusted AE rates, per 100 patient-years: Grade ≥ 3 AEs Fatal AEs	171.2 6.9	151.9 5.6

Safety was consistent with previously reported results

• KdD continues to show a favorable benefit-risk profile

With ~11 months of additional follow-up, median PFS was improved in patients treated with KdD (28.6 months) versus Kd (15.2 months)

*By ORCA. †One fatal AE in the KdD arm (due to arrhythmia) and one fatal AE in the Kd arm (due to COVID-19 pneumonia) had occurred since the primary analysis.

AE, adverse event; CI, confidence interval; HR, hazard ratio; Kd, carfilzomib, dexamethasone; KdD, carfilzomib, dexamethasone, daratumumab; ORCA, Onyx Response Computer Algorithm; PFS, progression-free survival; RRMM, relapsed or refractory multiple myeloma.

Dimopoulos M, et al. Presented at 62nd ASH Annual Meeting and Exposition; Dec 5–8, 2020; Virtual. Abstract 2325.



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CANDOR (KdD vs Kd in RRMM)





IKEMA



Sample size calculation: ~300 patients and 159 PFS events to detect 41% risk reduction in hazard rate for PFS with 90% power and one-sided 0.025 significance level

Patients refractory to, n (%)

IMiD	78 (43.6)	58 (47.2)
Lenalidomide	57 (31.8)	42 (34.1)
PI	56 (31.3)	44 (35.8)

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Moreau et al Lancet 2021 https://doi.org/10.1016/S0140-6736(21)00592-41



IKEMA Updated PFS – IRC assessment

by FDA censoring rules*



PFS analysis by IRC using FDA censoring rules showed consistent results with the interim analysis

IKEMA Depth of response



Best overall response

Odds ratio Isa-Kd vs Kd (95% Cl) 2.09 (1.26–3.48) MRD neg rate (NGS 10⁻⁵)



MRD negativity rate with Isa-Kd in the ITT population was 33.5% (29.6% at IA) MRD negativity and CR rate with Isa-Kd in the ITT population was 26.3% (20.1% at IA)

Incidence (%)

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P ANYO CLINIC Patient disposition and progression-free survival by MRD status



PFS by MRD status*

More patients in the Isa-Kd arm achieved MRD–. In both arms, more patients achieving MRD– remained on treatment.

Belantamab Mafodotin: BCMA-Targeted ADC

- Belantamab mafodotin
- Humanized, afucosylated lgG1 anti-BCMA antibody
- Conjugated to a microtubule disrupting agent MMAF via a stable, protease-resistant maleimidocaproyl linker
- Preclinical studies demonstrate its selective and potent activity



Longer Term Outcomes With Single-Agent Belantamab Mafodotin in Patients With Relapsed or Refractory Multiple Myeloma: 13-Month Follow-Up From the Pivotal DREAMM-2 Study

Sagar Lonial, MD D¹; Hans C. Lee, MD²; Ashraf Badros, MD D³; Suzanne Trudel, MD⁴; Ajay K. Nooka, MD D¹; Ajai Chari, MD D⁵; Al-Ola Abdallah, MD⁶; Natalie Callander, MD⁷; Douglas Sborov, MD⁸; Attaya Suvannasankha, MD⁹; Katja Weisel, MD¹⁰; Peter M. Voorhees, MD¹¹; Lynsey Womersley, MSc¹²; January Baron, MS¹³; Trisha Piontek, BSN¹³; Eric Lewis, MD¹⁴; Joanna Opalinska, MD¹³; Ira Gupta, MD¹³; and Adam D. Cohen, MD¹⁵

Cancer 2021;127(22):4198-212.



DREAMM-2: Single-Agent Belantamab Mafodotin Efficacy Outcomes

	Patients with 3-6 prior therapies (n = 47)	Patients with ≥7 prior therapies (n = 50)	
ORR, % (97.5% CI)	32 (21.7-43.6)	30 (16.5-46.6)	
Median DoR (95% CI estimates), months	11.0 (4.2-NR)	13.1 (4.0-NR)	
Probability of DoR ≥6 months, % (95% CI estimates)	63 (31-83)	73 (44-89)	
Median PFS (95% CI estimates), months	2.8 (1.6-3.6)	2.2 (1.2-3.6)	
Probability of PFS at 6 months, % (95% CI estimates)	35 (20-50)	30 (17-43)	

ORR = overall response rate; CI = confidence interval; DoR = duration of response; NR = not reached; PFS = progression-free survival

Lonial S et al. *Cancer* 2021;127(22):4198-212; ASH 2020; Abstract 1417.

DREAMM-2: Longitudinal Outcomes



Expected median OS in triple-class refractory myeloma: 8.6 months



Lonial S et al. *Cancer* 2021;127(22):4198-212.

DREAMM-2: Frequency of Corneal and Vision-Related Events



Lonial S et al. *Cancer* 2021;127(22):4198-212.



Update on Belantamab Mafodotin-blmf US Marketing Authorisation

Press Release: November 22, 2022

"[The manufacturer] today announced it has initiated the process for withdrawal of the US marketing authorisation for belantamab mafodotin-blmf following the request of the US Food and Drug Administration (FDA). This request was based on the previously announced outcome of the DREAMM-3 phase III confirmatory trial, which did not meet the requirements of the FDA Accelerated Approval regulations. Belantamab mafodotin is a monotherapy treatment for adult patients with relapsed or refractory multiple myeloma (RRMM) who have received at least four prior therapies including an anti-CD38 monoclonal antibody, a proteasome inhibitor, and an immunomodulatory agent.

[The] Chief Medical Officer said, 'We respect the Agency's approach to the accelerated approval regulations and associated process. Multiple myeloma is a challenging disease, with poor outcomes for patients whose disease has become resistant to standard-of-care treatments. We will continue the DREAMM clinical trial programme and work with the US FDA on a path forward for this important treatment option for patients with multiple myeloma.'"

www.gsk.com/en-gb/media/press-releases/gsk-provides-update-on-blenrep-us-marketing-authorisation/



Summary of Select Clinical Trials of Belantamab Mafodotin (Belamaf) Combination Approaches for R/R Multiple Myeloma

Trial	Characteristics	ORR	Safety
DREAMM-6 (NCT03544281)	 Phase I/II Arm A: belamaf + len/dex (n = 45) Arm B: belamaf +bor/dex (n = 18) 	 Arm A: highest ORR of 75% in the 1.9 mg/kg Q4W dose Arm B: 78% 	 Arm A Grade ≥3 AEs: Thrombocytopenia – 3 (7%) Keratopathy – 15 (33%) Arm B Grade ≥3 AEs: Thrombocytopenia – 12 (67%) Keratopathy – 11 (61%)
DREAMM-4 (NCT03848845)	 Phase I/II (N = 34) Belamaf + pembrolizumab Dose escalation belamaf 2.5 mg/kg and 3.4 mg/kg 	 47% at RP2D of 2.5 mg/kg 	All grades: • Thrombocytopenia – 12 (35%) • Keratopathy – 26 (76%)
ALGONQUIN (NCT03715478)	 Phase I/II (N = 56) Belamaf + pom/dex 	 ≥PR/VGPR 89%/72% across all dosing cohorts 	 Grade ≥3 TEAEs: Thrombocytopenia – 19 (34%) Keratopathy – 39 (70%)

ORR = overall response rate; AEs = adverse events; PR = partial response; VGPR = very good partial response; TEAEs = treatment-emergent AEs

Popat R et al. ASH 2020; Abstract 1419; Quach H et al. ASCO 2022; Abstract 8017; Suvannasankha A et al. EHA 2022; Abstract P940; Trudel S et al. ASH 2021; Abstract 2736.



Ongoing Phase III Trials of Belantamab Mafodotin

Study	N	Setting	Treatment arms	Estimated primary completion
DREAMM-3 (NCT04162210)	380	 Relapsed/refractory multiple myeloma (RRMM) ≥2 prior lines of treatment, including ≥2 consecutive cycles of both lenalidomide and a proteasome inhibitor (separately or in combination) 	 Belantamati mafodotin Pomalidomide/low-dose dexamethasone 	June 2022
DREAMM-8 (NCT04484623)	450	 RRMM ≥1 prior line of treatment, including a lenalidomide- containing regimen 	 Belantamab mafodotin + Pomalidomide/dexamethasone Bortezomib + Pomalidomide/dexamethasone 	March 2023
DREAMM-7 (NCT04246047)	575	 RRMM ≥1 prior line of treatment 	 Belantamab mafodotin + Bortezomib/dexamethasone Daratumumab + Bortezomib/dexamethasone 	April 2023



STORM: Overall Response and Duration of Response







BOSTON Trial: Phase 3 – Vd vs SVd

SVd Weekly 35-day cycles	Selinexor (oral) Bortezomib (SC) Dexamethasone (oral)	100 mg 1.3 mg/m ² 20 mg	Days 1, 8, 15, 22, 29 Days 1, 8, 15, 22 Days 1, 2, 8, 9, 15, 16, 22,	23, 29, 30
Vd Twice Weekly 21-day cycles Cycles 1-8	Bortezomib (SC) Dexamethasone (oral) If IRC confirmed PD: cro	1.3 mg/m² 20 mg ossover to SV	Days 1, 4, 8, 11 Days 1, 2, 4, 5, 8, 9, 11, 12 /d or Sd permitted	Vd We 35-Day cy Cycles ≥9

Planned 40% lower bortezomib and 25% lower dexamethasone dose at 24 weeks (8 cycles) in SVd arm vs. Vd arm

Stratification:

Prior PI therapies (Yes vs No) Number of prior anti-MM regimens (1 vs >1) R-ISS stage at study entry (Stage III vs Stage I/II)

5HT-3 prophylactic recommended in SVd arm



Primary endpoint: PFS Key secondary endpoints:

- ORR •
- ≥VGPR
- Grade ≥2 PN

Secondary endpoints:

OS •

or unacceptable toxicity

РО

- DoR
- TTNT
- Safety

Efficacy Assessed by IRC



BOSTON Trial: PFS



Intention-to-treat (ITT) population N=402, Data cut-off February 18, 2020 *Hazard Ratio 95% CI=0.53–0.93 one-sided *P* value.

Median follow-up: 13.2 and 16.5 months in SVd and Vd arms, respectively.

BOSTON Trial: Forest Plot

Subgroups	# Patients	Overall		HR (95%
Age <65 years ≥65 years	161 241	Favoring SVd	Favoring Vd	CI) 0.74 (0.49–1.11) 0.55 (0.37–0.83)
High-risk Cytogenetics Yes Del[17p] or t[4;14] or t[14;16] or 1q2 No Del[17p]	21 192 210 37			0.67 (0.45–0.98) 0.62 (0.42–0.95) 0.38 (0.16–0.86)
Frailty Frail Fit	130 272			0.69 (0.40–1.17) 0.66 (0.47–0.93)
Previous PI Therapies Yes No	307 95		4	0.78 (0.58–1.06) 0.26 (0.11–0.60)
Previous lenalidomide Therapy Yes No	154 248			<mark>0.63 (0.41–0.97)</mark> 0.66 (0.45–0.96)
No. of Prior Lines of Therapy 1 2-3	198 204			0.63 (0.41–0.95) 0.69 (0.48–1.01)

HR = Hazard Ratio, Data cut-off February 18, 2020.

t(11;14) Myeloma is not a risk category





Fonseca et al Blood 2002 Lakshaman et al Leukemia 32,131 (2018) Hayman at al Blood 20011 Tiedeman et al Leukemia 2008

- 15% of all MM
- 50% pPCL
- 50% light chain amyloidosis
- Common in IgM MM
- Diploid

Venetoclax



R Fonseca Unpublished information

Venetoclax-Bd highly active in t(11;14) or high BCL-2

Figure 4. Investigator-Assessed PFS by BCL2 Gene Expression and Cytogenetic Risk Status



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Study Design and Objectives

t(11;14) RRMM				
At least 1 prior line of therapy, including a PI and IMiD	Part 1a: E (n=3 minim Ven 400 mg + Dd	scalation hum/cohort) Ven 800 mg + Dd	Part 1b: VenDd Expansion VenDd (N=24)	
RRMM				
Nonrefractory to PIs and received 1–3 prior lines of	Part 2a: E (n=3 minim	scalation num/cohort) Ven 800 mg + DVd	mg Ven DVd (N=24)	
therapy	Ven 400 mg + DVd			
Dose escalation decisions were bas	ed on a Bayesian optimal i	interval design and nur	number of patients with DLT.	
Primary objectives Safety, tolerability, and preliminary efficacy (ORR) of VenDd and VenDVd regimens		y efficacy imens	 Secondary objectives Safety profiles of VenDd and VenDVd in expansion phases 	

PFS, DOR, TTP, and MRD



Best M-Protein Response



EDITORIAL Review

- Integration of Novel Therapies into the Management of Relapsed/Refractory (R/R) MM Dr Fonseca
- Long-term results from Phase III studies (eg, ICARIA-MM, IKEMA) supporting the use of isatuximabbased combination therapy in R/R MM
 - Slides 6-11 (ICARIA-MM, Lancet Oncol 2022)
 - Slides 15-18 (IKEMA, COMy2022)
- Key findings from the Phase III BOSTON trial of selinexor with bortezomib/dexamethasone for R/R MM
 - Slide 21-23 (ASCO 2020)
- Early results with other selinexor-containing combinations in R/R MM
 - No other datasets shown
 - Recommend adding: STORM: Selinexor/dexamethasone for triple-class refractory available (NEJM 2019)
 - Other, small earlier published studies of combinations are available
- Available and emerging findings with belantamab mafodotin monotherapy for R/R MM
 - Recommend adding press release re update on US marketing authorization How much discussion of older data and ongoing trials in light of current status?
 - Slides 19-20 (MOA, DREAMM-2, Lancet Oncol 2019); Recommend replacing with longer-term follow-up data available (Cancer 2021)
 - Recommend adding table of ongoing DREAMM-07 and DREAMM-08 studies
- Early data with belantamab mafodotin combined with other systemic therapies and/or in earlier lines of treatment
 - Not sure whether you want to add early-phase data (DREAMM-06, DREAMM-04, ALGONQUIN) available with combinations
- NOTE: APOLLO: Dara/PD in RRMM (slides 3-5) and CANDOR: KdD vs Kd in RRMM (slides 12-14)





All Recommended Changes Agreed Upon from Dr Fonseca and Executed in the Current Deck

