

Real-world effectiveness and safety of belantamab mafodotin monotherapy in patients with relapsed/refractory multiple myeloma treated in Europe

Authors

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<https://doi.org/10.3324/haematol.2025.289034>

Supplementary Material

Supplementary Table 1. Select comorbidities present at belantamab mafodotin initiation

Comorbidity	Overall study population (N=84)
Any comorbidity of interest at belantamab mafodotin initiation, n (%)	51 (60.7)
Renal disease, n (%)	17 (20.2)
Pulmonary disease, n (%)	15 (17.9)
Cardiac disease, n (%)	33 (39.3)
Diabetes, n (%)	20 (23.8)
Eye disease, including history of dry eye/eye injuries affecting BCVA, n (%)	27 (32.1)*
Ongoing at belantamab mafodotin initiation	23 (27.4)
Ongoing eye disease of interest at belantamab mafodotin initiation [†]	
Cataracts	8 (9.5)
Dry eye	7 (8.3)
Keratopathy	4 (4.8)
Change in BCVA	1 (1.2)
Glaucoma	3 (3.6)
Blurred vision	2 (2.4)
Corneal erosion/defect	1 (1.2)
Eye irritation	1 (1.2)
Macular degeneration	1 (1.2)
Resolved at belantamab mafodotin initiation	4 (4.8) [‡]
Resolved eye disease of interest at belantamab mafodotin initiation [§]	
Cataracts	10 (11.9)
Keratopathy	2 (2.4)
Change in BCVA	5 (6.0)

Blurred vision	1 (1.2)
Ulcerative keratitis	1 (1.2)
Infective keratitis	1 (1.2)

*Type of eye disease was unknown for 1 of these patients. †Diabetic retinopathy was not considered an eye disease of interest. ‡Number of patients with all eye diseases resolved at belantamab mafodotin initiation. §Number of patients who had resolution of individual eye diseases at belantamab mafodotin initiation.

BCVA, best-corrected visual acuity.

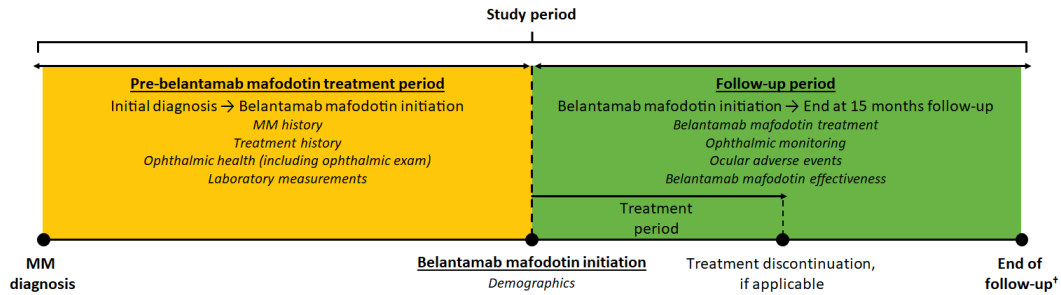
Supplementary Table 2. Ocular adverse events by presence or absence of ophthalmic disease history at belantamab mafodotin initiation

Patients with an oAE, n (%)	Ongoing ophthalmic disease (N=23)	Prior ophthalmic disease only (N=4)	No history of ophthalmic disease (N=57)
Keratopathy	14 (60.9)	2 (50.0)	26 (45.6)
Corneal erosions or defects	4 (17.4)	2 (50.0)	1 (1.8)
Blurred vision	2 (8.7)	1 (25.0)	3 (5.3)
Change in BCVA	2 (8.7)	0	2 (3.5)
Dry eye	0	0	1 (1.8)
Photophobia	1 (4.3)	0	0
Other oAE	5 (21.7)	1 (25.0)	10 (17.5)

BCVA, best-corrected visual acuity; oAE, ocular adverse event.

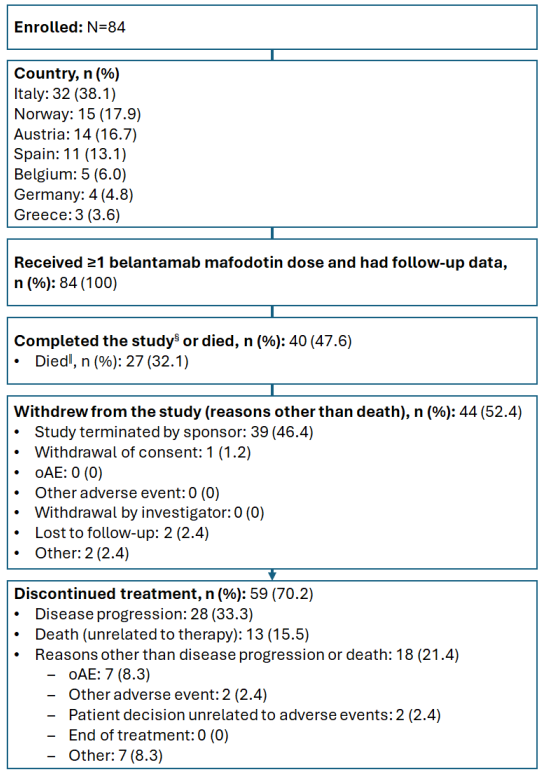
Supplementary Figure 1. Study design* (A) and patient disposition (B)

A



Endpoints	
Primary	Secondary
<ul style="list-style-type: none"> • Patient characteristics <ul style="list-style-type: none"> – Demographic/clinical characteristics – Disease status – Treatment history 	<ul style="list-style-type: none"> • oAE incidence, monitoring, and management† • Effectiveness <ul style="list-style-type: none"> – BOR/ORR/DOR – OS – rwPFS – Duration of therapy

B



*Patients with RRMM who were due to receive their first dose of belantamab mafodotin in Europe, or who had initiated belantamab mafodotin within 3 months of enrolment were prospectively enrolled. Data prior to enrolment were collected retrospectively.

†End of follow-up at 15 months, study discontinuation for any reason, informed consent withdrawal or death, whichever came first; early closure of the study impacted study objectives requiring follow-up for

some patients.

‡Data were reported using both the NCI-CTCAE criteria and the KVA scale.¹ Missing data regarding ophthalmic exams may have resulted in underreporting of the exams.

§Patients who completed the planned 15 months of follow-up.

||Deaths were recorded as due to disease/disease progression (n=18), AEs other than oAEs (n=2), unknown cause (n=5), and not listed (n=2).

AE, adverse event; oAE, ocular adverse event; MM, multiple myeloma.

References

1. European Medicines Agency. Blenrep.
<https://www.ema.europa.eu/en/medicines/human/EPAR/blenrep-0#:~:text=On%2022%20May%202025%2C%20the,relapsed%20or%20refractory%20multiple%20myeloma>. Accessed August 18, 2025.