# Abstract: P897

# Title: A PATIENT-REPORTED QUESTIONNAIRE MAY ELIMINATE THE NEED FOR AN OPHTHALMIC EXAM BEFORE BELANTAMAB MAFODOTIN DOSING IN NEWLY DIAGNOSED TRANSPLANT-INELIGIBLE PATIENTS WITH MULTIPLE MYELOMA

**Abstract Type: Poster Presentation**

**Topic: Myeloma and other monoclonal gammopathies - Clinical**

**Background:**

Ocular adverse events (OAEs; best corrected visual acuity [BCVA] change from baseline and keratopathy) are common with belantamab mafodotin (belamaf; GSK2857916), often necessitating an ophthalmologist's assessment to guide dosing. Adjusting belamaf dosing without the need for an ophthalmic exam, while maintaining efficacy, will benefit the patients (pts), reduce healthcare resource utilization, and increase belamaf's cost-effectiveness.

**Aims:**

To evaluate a novel approach determining belamaf dose modifications in transplant-ineligible (TI) pts with newly diagnosed multiple myeloma (NDMM) who are treated with an extended belamaf dosing schedule in combination with lenalidomide and dexamethasone (Rd).

**Methods:**

BelaRd (NCT04808037) is a 2-part, phase 1/2 study. Part 1 evaluates the safety/tolerability of 3 belamaf doses (2.5/1.9/1.4 mg/kg) plus Rd in 36 TI, NDMM pts. This part established belamaf 1.9 mg/kg Q8W, extended to Q12W to account for OAEs, as the recommended phase 2 dose (RP2D). Part 2 assesses the safety/efficacy of RP2D in Groups A and B and evaluates two belamaf dosing guidelines for managing OAEs. In Group A, dosing is determined by an ophthalmic exam performed by an ophthalmologist, while in Group B by the novel Vision-Related Anamnestic (VRA) tool and the presence of ≥Gr3 OAEs identified in an ophthalmic exam. VRA is a pt-reported, 9-question (Q) tool capturing ocular symptoms (Q1-5; sensitivity to light, gritty, painful, or sore eyes, blurred or poor vision) and their impact on activities of daily living (ADL; Q6-9; reading, driving, working with a computer/smartphone, watching TV). Ocular symptoms and ADL impairment frequencies are scored as occurring 'substantial' (≥50.0%) or 'minimal' (<50.0%) time during over 24 hours before belamaf dosing, or 'none' of the time. Herein, we present the OAEs and preliminary efficacy results after 146/128 ophthalmic and VRA assessments in Groups A and B (cut-off date: 05/01/2024).

**Results:**

All Part 2 pts (n=30; Table) were included in this analysis. By the cut-off date, 25 (83.3%) were ongoing and 5 (16.7%) discontinued (death: 4 [13.3%]; progressive disease: 1 [3.3%]). For Groups A and B, the median belamaf administrations and number of cycles reached were 4.0/4.0 and 11.0/9.0. Of 88/75 planned belamaf doses, the proportions of doses skipped due to ocular toxicity were 23.9% and 12.0%, while the median time to belamaf re-administration following a dose skip was 4.1 and 4.0 weeks.

Of 146/128 ophthalmic exams, the respective rates of Gr2 and ≥Gr3 OAEs were 34.3%/26.6% and 4.8%/0%. Gr2 and ≥Gr3 BCVA change from baseline was noted in 34.3%/21.7% and 4.8%/0.0% ophthalmic exams, while a meaningful BCVA decline (Snellen score <20/50 and ≥3 lines drop in the better-seeing eye) was recorded in 9.6%/7.1%. Gr2 keratopathy was identified in 4.1%/14.8% ophthalmic exams, while no ≥Gr3 events were observed.

Among 146/128 VRA evaluations for Groups A and B, the proportions of assessments with ocular symptoms and ADL impairment occurring for 'substantial time' were 4.8%/9.4% and 2.7/5.5%. Of note, VRA captured a

“substantial time” response in 85.7% of assessments with ≥Gr3 OAEs.

Finally, at a median follow-up of 10.8/8.8 months for Groups A and B, the overall response rates were 93.3%/100.0%, with a median time to response 1.1 month.

**Summary/Conclusion:**

In this preliminary analysis, the VRA tool was safe and effective in guiding belamaf dosing. Furthermore, a high concordance rate between VRA and the ophthalmologist’s assessment was observed in ≥Gr3 OAEs. Further analyses will determine if VRA can effectively replace an ophthalmic exam to determine belamaf dosing.

| | Overall (N=30) | Group A (N=15) | Group B (N=15) |
|---|---|---|---|
| **Demographics and disease characteristics** | | | |
| Age in years, median (range) | 75.0 (65.0–89.0) | 74.0 (66.0–89.0) | 77.0 (65.0–84.0) |
| Male | 20 (66.7) | 11 (73.3) | 9 (60.0) |
| R–ISS staging | | | |
| I | 8 (26.7) | 5 (33.3) | 3 (20.0) |
| II | 19 (63.3) | 9 (60.0) | 10 (66.7) |
| III | 3 (10.0) | 1 (6.7) | 2 (13.3) |
| Presence of high–risk cytogenetics* | 5 (16.7) | 2 (13.3) | 3 (20.0) |
| **Belamaf dosing** | | | |
| Follow–up time, months, median (range) | 9.2 (3.9–15.7) | 10.8 (4.0–15.7) | 8.8 (3.9–15.7) |
| Maximum cycle reached, median (range) | 9.5 (4.0–17.0) | 11.0 (4.0–16.0) | 9.0 (4.0–17.0) |
| Total planned belamaf doses | 163 | 88 | 75 |
| Number of doses skipped due to ocular toxicity§ | 30 (18.4) | 21 (23.9) | 9 (12.0) |
| Dose intensity, mg/kg/Q4W, median (range) | 1.1 (0.5–1.5) | 1.0 (0.5–1.5) | 1.1 (0.8–1.5) |
| Time to belamaf re–administration after a dose skip, weeks, median (range) | 4.0 (3.9– 25.0) | 4.1 (3.9– 25.0) | 4.0 (4.0– 9.6) |
| **Safety – OAEs, Assessments with OAEs/ Total number of ocular assessments** | | | |
| OAEs† | | | |
| Total number of assessments | 274 | 146 | 128 |
| Grade 0–1 | 183 (66.8) | 89 (61.0) | 94 (73.4) |
| Grade 2 | 84 (30.7) | 50 (34.3) | 34 (26.6) |
| Grade 3 | 7 (2.6) | 7 (4.8) | – |
| BCVA change from baseline† | | | |
| Total number of assessments | 275 | 146 | 129 |
| Grade 0–1 | 190 (69.1) | 89 (61.0) | 101 (78.3) |
| Grade 2 | 78 (28.4) | 50 (34.3) | 28 (21.7) |
| Grade 3 | 7 (2.5) | 7 (4.8) | – |
| Keratopathy† | | | |
| Total number of assessments | 274 | 146 | 128 |
| Grade 0–1 | 249 (90.9) | 140 (95.9) | 109 (85.2) |
| Grade 2 | 25 (9.1) | 6 (4.1) | 19 (14.8) |
| Assessments with BCVA decline worse than 20/50^ and ≥3 lines drop in the better seeing eye/Total ocular assessments | 21/247 (8.5) | 13/135 (9.6) | 8/112 (7.1) |
| Time to resolution* of keratopathy in months, median (range) | 1.1 (0.4–3.1) | 1.0 (0.9–1.1) | 1.1 (0.4–3.1) |
| Time to resolution* of BCVA in months, median (range) | 1.9 (0.9–7.7) | 1.9 (1.0–7.7) | 1.9 (0.9–3.5) |
| **Vision–Related Anamnestic tool assessments responses** | | | |
| **Worst answer on ocular symptoms (Q1–5)** | | | |
| Substantial time | 19 (6.9) | 7 (4.8) | 12 (9.4) |
| Minimal time | 219 (79.9) | 116 (79.5) | 103 (80.5) |
| None | 36 (13.1) | 23 (15.8) | 13 (10.2) |
| **Worst answer on ADL impairment (Q6–9)** | | | |
| Substantial time | 11 (4.0) | 4 (2.7) | 7 (5.5) |
| Minimal time | 147 (53.6) | 77 (52.7) | 70 (54.7) |
| None | 116 (42.3) | 65 (44.5) | 51 (39.8) |
| **Efficacy (IMWG response)** | | | |
| Stringent complete response | 1 (3.3) | - | 1 (6.7) |
| Complete response | 3 (10.0) | 3 (20.0) | - |
| Very good partial response | 21 (70.0) | 10 (66.7) | 11 (73.3) |
| Partial response | 4 (13.3) | 1 (6.7) | 3 (20.0) |
| Median time to first response, median (range) | 1.1 (1.0–4.0) | 1.1 (1.0–4.0) | 1.1 (1.0–3.8) |

Data are n (%) for patients or n/N (%) as number of assessments, unless otherwise shown
*High–risk cytogenetics defined as Del 17p13, t(14:16), or t(4:14)
§Percentages are based on the number of planned doses
† For “BCVA change from baseline” and “keratopathy”, no grade 4 and grade ≥ 3 assessments were observed, respectively.
* Resolution for BCVA change from baseline and keratopathy, was considered when grade became ≤ 1.
^ Patients with baseline BCVA worse than 20/50 were excluded from this analysis.
ADL, activities of daily living; BCVA, best corrected visual acuity; belantamab mafodotin, belamaf; IMWG, International Myeloma Working Group; N/n, number of patients/assessments; OAE, ocular adverse event; Q, question; Q4W, once every 4 weeks; R–ISS, revised International Staging System.

**Keywords:** Multiple myeloma