P-018

Updated Comparative Effectiveness of Talquetamab vs Real-World Physician's Choice of Treatment in LocoMMotion and MoMMent for Patients With Triple-Class Exposed Relapsed/Refractory Multiple Myeloma

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Key Takeaway

With longer follow-up, this adjusted comparison further confirms results from previous analyses that demonstrate the clinical benefit of talquetamab over RWPC in patients with triple-class exposed RRMM

Conclusions

With 73 different treatment regimens included in the RWPC cohort, these results emphasize the lack of a standard of care for patients with triple-class exposed RRMM

Patients treated with talquetamab were significantly more likely to achieve responses, especially deep responses, and had significantly improved PFS, TTNT, and OS compared with patients receiving RWPC generated from contemporary, prospective real-world studies

Both schedules of talquetamab showed superior efficacy compared with RWPC, highlighting its overall clinical benefit and further validating talquetamab as a compelling treatment option for patients with RRMM who are triple-class exposed

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Poster

Supplementary material

https://www.congresshub.com/Oncology/IMS2024/Talquetamab/Einsele

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Disclosures

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Introduction

- Talquetamab is the first approved G protein–coupled receptor family C group 5 member D–targeting bispecific antibody for the treatment of patients with triple-class exposed relapsed/refractory multiple myeloma (RRMM) based on results from the MonumenTAL-1 study (NCT03399799/NCT04634552)[1-3]
- LocoMMotion (NCT04035226) and MoMMent (NCT05160584) are 2 prospective, consecutive, observational studies evaluating real-world physician's choice of treatment (RWPC) in patients with triple-class exposed RRMM[4,5]
  - Both studies were designed to mirror ongoing, single-arm trials to enable their use as external control arms
- A previous indirect comparison showed superior efficacy outcomes with talquetamab (data cut-off, Jan 2023) vs RWPC in LocoMMotion and MoMMent (data cut-off, Oct 2022)[6]
- We report an updated adjusted comparison of talquetamab vs RWPC with longer follow-up in each of the studies

Methods

Data sources

- Individual patient-level data (IPD) from MonumenTAL-1 were included for patients who received subcutaneous talquetamab 0.4 mg/kg weekly (QW) or 0.8 mg/kg every other week (Q2W) (data cut-off, Jan 2024); median follow-up, 29.8 and 23.4 months in the QW and Q2W cohorts, respectively
- An external control arm was created using IPD from LocoMMotion (final data; median follow-up, 26.4 months) and MoMMent (data cut-off, Aug 2023; median follow-up, 13.9 months) that met key MonumenTAL-1 eligibility criteria (**Figure 1**)

Adjusted treatment comparison

- The primary analysis used inverse probability of weighting with average treatment effect in the treated (ATT) weights to adjust for imbalances in baseline characteristics
- Balance after adjustment was assessed using standardized mean differences (SMDs)
- The comparative effectiveness of talquetamab vs RWPC was assessed for overall response rate (ORR), very good partial response (VGPR) or better, complete response (CR) or better, duration of response (DOR), progression-free survival (PFS), time to next treatment (TTNT), and overall survival (OS)

Statistical analysis

- For binary outcomes, a weighted logistic regression was used to estimate odds ratios and response ratios with 95% CIs
- Time-to-event outcomes were analyzed using a weighted Cox proportional hazards model to estimate hazard ratios (HRs) and 95% CIs
- Sensitivity analyses evaluated the impact of alternative statistical methods and variable adjustment
- Subgroup analyses were assessed in patients with ≥4 prior lines of therapy (LOT)

Figure 1: MonumenTAL-1 key patient eligibility criteria

MonumenTAL-1; QW (n=143), Q2W (n=154), and RWPC (N=175)

- Triple-class exposed
- ≥3 prior LOT
- Progression ≤12 months after last therapy
- No prior receipt of T-cell redirection therapy including CAR-T or bispecific antibodies
- ECOG PS ≤2
- Hemoglobin ≥8 g/dL
- Creatinine clearance ≥40 mL/min/1.73 m^2

CAR, chimeric antigen receptor; ECOG PS, Eastern Cooperation Oncology Group performance status.

Results

Treatments and baseline characteristics

- The most common therapies in the RWPC cohort are shown in **Supplemental Table 1**
- After weighting, the RWPC cohort was well balanced vs talquetamab cohorts, with all SMDs <0.22

Efficacy outcomes

- Patients treated with talquetamab 0.4 mg/kg QW and 0.8 mg/kg Q2W had superior outcomes vs patients who received RWPC across all endpoints (**Table 1**)
  - Patients treated with talquetamab were 2.5/2.4 times more likely to achieve a response, 4.5/4.8 times more likely to reach ≥VGPR, and 95.8/124.0 times more likely to reach ≥CR in the QW or Q2W cohorts, respectively, vs patients who received RWPC (**Figure 2**)
  - Patients treated with talquetamab had significantly improved PFS (**Figure 3**) and OS (**Figure 4**) vs patients receiving RWPC
- Results were consistent in patients with ≥4 prior LOT (**Table 2**) and across all sensitivity analyses

Table 1: Treatment outcomes with talquetamab vs RWPC

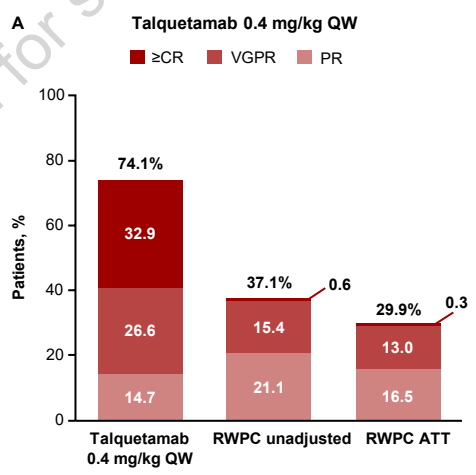
Outcome	Talquetamab 0.4 mg/kg QW vs RWPC		Talquetamab 0.8 mg/kg Q2W vs RWPC	
	Response ratio (95% CI)	*P* value	Response ratio (95% CI)	*P* value
ORR	2.48 (1.78–3.46)	<0.0001	2.38 (1.71–3.33)	<0.0001
≥VGPR	4.46 (2.82–7.05)	<0.0001	4.76 (2.98–7.60)	<0.0001
≥CR	95.81 (7.51–1221.69)	0.0004	124.04 (9.10–1690.93)	0.0003
	HR (95% CI)	***P* value**	**HR (95% CI)**	***P* value**
DOR	0.72 (0.47–1.11)	0.138	0.49 (0.32–0.75)	0.001
PFS	0.54 (0.40–0.72)	<0.0001	0.46 (0.34–0.62)	<0.0001
TTNT	0.51 (0.39–0.67)	<0.0001	0.44 (0.34–0.58)	<0.0001
OS	0.38 (0.27–0.54)	<0.0001	0.36 (0.24–0.53)	<0.0001

Table 2: Treatment outcomes with talquetamab vs RWPC in patients with ≥4 prior LOT

Outcome	Talquetamab 0.4 mg/kg QW vs RWPC		Talquetamab 0.8 mg/kg Q2W vs RWPC	
	Response ratio (95% CI)	*P* value	Response ratio (95% CI)	*P* value
ORR	2.36 (1.60–3.46)	<0.0001	2.26 (1.52–3.35)	<0.0001
≥VGPR	3.86 (2.30–6.47)	<0.0001	4.26 (2.52–7.19)	<0.0001
≥CR[a]	NE	NE	NE	NE
	HR (95% CI)	***P* value**	**HR (95% CI)**	***P* value**
DOR	0.75 (0.45–1.25)	0.275	0.53 (0.30–0.93)	0.026
PFS	0.60 (0.42–0.85)	0.004	0.50 (0.34–0.73)	0.0004
TTNT	0.52 (0.38–0.71)	<0.0001	0.44 (0.31–0.63)	<0.0001
OS	0.39 (0.26–0.58)	<0.0001	0.34 (0.21–0.55)	<0.0001

Data for talquetamab are reported from phase 2 only in patients who were included in the USPI (n=100 in QW and n=87 in Q2W). [a]NE due to no patients having a ≥CR in the RWPC cohort. NE, not evaluable.

Figure 2: Unadjusted and ATT-weighted response rates



PR, partial response.

Figure 3: Unadjusted and ATT-weighted PFS

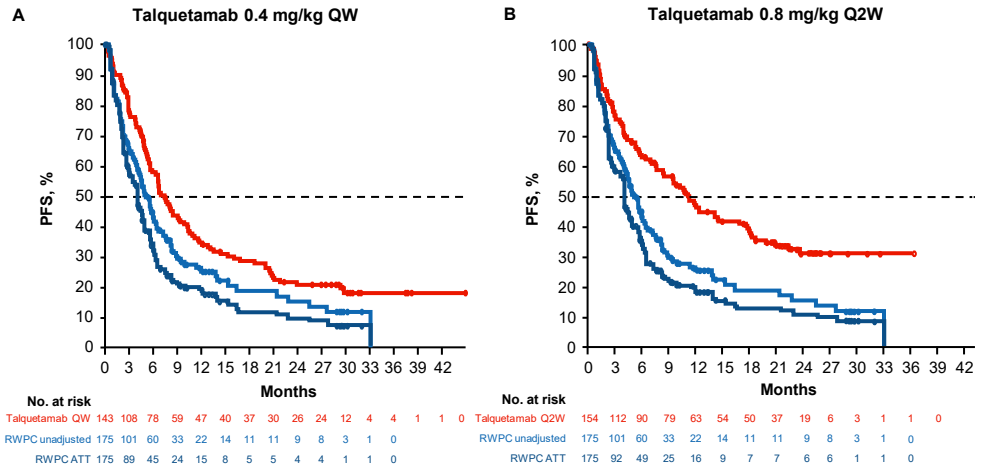
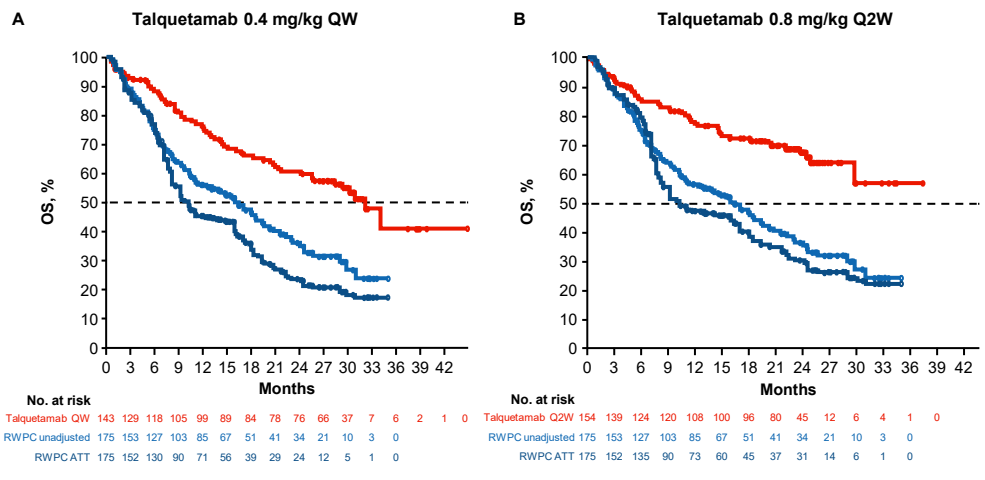


Figure 4: Unadjusted and ATT-weighted OS



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Multiple Myeloma

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