P-099

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

Jing Christine Ye[1], Noa Biran[2], Sandhya Nair[3], Xiwu Lin[4], Keqin Qi[5], Eric Ammann[6], Thomas Renaud[7], Colleen Kane[8], Trilok Parekh[7], Kathleen Gray[8], Xinke Zhang[9], Luciano J Costa[10]

[1]MD Anderson Cancer Center, University of Texas, Houston, TX, USA; [2]Hackensack University Medical Center, Hackensack, NJ, USA; [3]Janssen Pharmaceutica NV, Beerse, Belgium; [4]Janssen Global Services, Horsham, PA, USA; [5]Janssen Research & Development, Titusville, NJ, USA; [6]Janssen Global Services, Raritan, NJ, USA; [7]Janssen Research & Development, Raritan, NJ, USA; [8]Janssen Research & Development, Spring House PA, USA; [9]Janssen Scientific Affairs, Horsham, PA, USA; [10]University of Alabama at Birmingham, Birmingham, AL, USA

Key Takeaway

With longer follow-up, this adjusted comparison demonstrates that talquetamab continues to offer clinical benefit over RWPC in patients with triple-class exposed RRMM

Conclusions

Patients treated with talquetamab had significantly improved PFS, TTNT, and OS compared with patients receiving RWPC

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/Ye-Updated

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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]
- The nationwide deidentified electronic health record-derived Flatiron Health Multiple Myeloma cohort database study (Flatiron), evaluated real-world physician's choice of treatment (RWPC) in patients with triple-class exposed RRMM
- A previous indirect comparison showed improved efficacy outcomes with talquetamab vs RWPC in Flatiron[4]
- We report an updated adjusted comparison of talquetamab vs RWPC with longer follow-up in the MonumenTAL-1 study

Methods

Data sources

- Individual patient-level data 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 was 29.8 and 23.4 months in the QW and Q2W cohorts, respectively
- An external control arm was created from the Flatiron database (data cut-off, Jul 2022) for patients who 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 refractory status, cytogenetic risk, International Staging System stage, time to disease progression on last therapy, number of prior lines of therapy (LOT), time since diagnosis, age, and hemoglobin at baseline
- A fully adjusted model also adjusted for prior stem cell transplant, Eastern Cooperative Oncology Group performance status (ECOG PS), race, sex, and MM type
- Balance after adjustment was assessed using standardized mean differences (SMD)
- The comparative effectiveness of talquetamab vs RWPC was assessed for progression-free survival (PFS), time to next treatment (TTNT), and overall survival (OS)

Statistical analysis

- Outcomes were analyzed as time-to-event data using a weighted Cox proportional hazards model to estimate hazard ratios (HR) and 95% CIs, and a weighted Kaplan-Meier method was used to estimate median time-to-event outcomes, each with their respective 95% CIs
- Sensitivity analyses evaluated the impact of alternative statistical methods and prognostic factor adjustment
- Subgroup analyses were assessed in patients with ≥4 prior LOT

Figure 1: MonumenTAL-1 key patient eligibility criteria

MonumenTAL-1; QW (n=143), Q2W (n=154), and RWPC (N=1169[a])

- 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
- Estimated glomerular filtration rate ≥40 mL/min/1.73 m^2

[a]629 patients with 1169 eligible LOT.
CAR, chimeric antigen receptor.

Results

Treatments and baseline characteristics

- The most common therapies in the RWPC cohort are shown in **Table 1**
- After weighting, baseline characteristics were comparable across all patient cohorts, with most SMDs <0.1

Efficacy outcomes

- In the primary analysis, patients treated with talquetamab 0.4 mg/kg QW and 0.8 mg/kg Q2W had significantly improved outcomes (**Table 2**), including PFS (**Figure 2**), TTNT (**Supplemental Figure**), and OS (**Figure 3**), vs patients receiving RWPC
- For both talquetamab dosing schedules, outcomes based on the fully adjusted model remained in favor of talquetamab vs RWPC (**Table 2**)
- Results were generally consistent in patients with ≥4 prior LOT (**Table 3**) and across sensitivity analyses

Table 1: Treatment regimens in the RWPC cohort

Treatment regimen[a]	Frequency, n (%) (N=1169)[b]
Elotuzumab, pomalidomide, dexamethasone	56 (4.8)
Daratumumab, pomalidomide, dexamethasone	46 (3.9)
Clinical study drug	43 (3.7)
Carfilzomib, dexamethasone	42 (3.6)
Carfilzomib, cyclophosphamide, dexamethasone	36 (3.1)
Carfilzomib, pomalidomide, dexamethasone	32 (2.7)
Belantamab mafodotin-blmf	23 (2.0)
Bortezomib, selinexor, dexamethasone	23 (2.0)
Elotuzumab, lenalidomide, dexamethasone	22 (1.9)
Daratumumab, dexamethasone	21 (1.8)
Selinexor, dexamethasone	21 (1.8)
Daratumumab, lenalidomide, dexamethasone	19 (1.6)
Pomalidomide, dexamethasone	19 (1.6)
Bortezomib, daratumumab, dexamethasone	18 (1.5)
Clinical study drug, dexamethasone	18 (1.5)
Daratumumab/hyaluronidase-fihj, pomalidomide, dexamethasone	16 (1.4)

[a]Only treatments used in ≥16 patients are presented. [b]629 patients with 1169 eligible LOT. Percentages calculated with the number of total eligible LOT from patients in the all-treated analysis set as denominator. Patients with multiple observations may occur multiple times if they have received ≥1 combination in their treatment before progression or death.

Table 2: Treatment outcomes with talquetamab vs RWPC

Outcome/ analysis	Talquetamab 0.4 mg/kg QW vs RWPC			Talquetamab 0.8 mg/kg Q2W vs RWPC		
	Median, mo	HR (95% CI)	*P* value	Median, mo	HR (95% CI)	*P* value
PFS						
Primary analysis	7.5 vs 3.9	0.55 (0.45–0.68)	<0.0001	11.2 vs 4.0	0.45 (0.36–0.57)	<0.0001
Fully adjusted model	7.5 vs 4.2	0.57 (0.45–0.71)	<0.0001	11.2 vs 4.0	0.47 (0.27–0.59)	<0.0001
TTNT						
Primary analysis	9.1 vs 5.1	0.59 (0.47–0.72)	<0.0001	11.7 vs 5.1	0.49 (0.39–0.61)	<0.0001
Fully adjusted model	9.1 vs 5.0	0.60 (0.48–0.76)	<0.0001	11.7 vs 5.0	0.51 (0.40–0.64)	<0.0001
OS						
Primary analysis	32.1 vs 16.5	0.58 (0.43–0.79)	<0.0001	NR vs 15.8	0.46 (0.33–0.64)	<0.0001
Fully adjusted model	32.1 vs 16.5	0.60 (0.43–0.84)	0.003	NR vs 16.6	0.49 (0.35–0.69)	<0.0001

mo, month(s); NR, not reached.

Table 3: Treatment outcomes with talquetamab vs RWPC in patients with ≥4 prior LOT

Outcome/ analysis	Talquetamab 0.4 mg/kg QW vs RWPC			Talquetamab 0.8 mg/kg Q2W vs RWPC		
	Median, mo	HR (95% CI)	*P* value	Median, mo	HR (95% CI)	*P* value
PFS						
Primary analysis	6.8 vs 3.6	0.52 (0.40–0.68)	<0.0001	12.5 vs 3.8	0.37 (0.27–0.50)	<0.0001
Fully adjusted model	6.8 vs 3.9	0.55 (0.41–0.73)	<0.0001	12.5 vs 3.9	0.37 (0.27–0.50)	<0.0001
TTNT						
Primary analysis	9.5 vs 4.9	0.56 (0.43–0.73)	<0.0001	13.1 vs 4.7	0.43 (0.32–0.57)	<0.0001
Fully adjusted model	9.5 vs 5.0	0.59 (0.44–0.80)	0.001	13.1 vs 4.6	0.42 (0.31–0.58)	<0.0001
OS						
Primary analysis	32.1 vs 16.6	0.56 (0.39–0.82)	0.002	NR vs 15.8	0.41 (0.27–0.63)	<0.0001
Fully adjusted model	32.1 vs 16.2	0.57 (0.38–0.86)	0.008	NR vs 15.9	0.42 (0.27–0.66)	<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).

Figure 2: ATT-weighted PFS for primary analysis

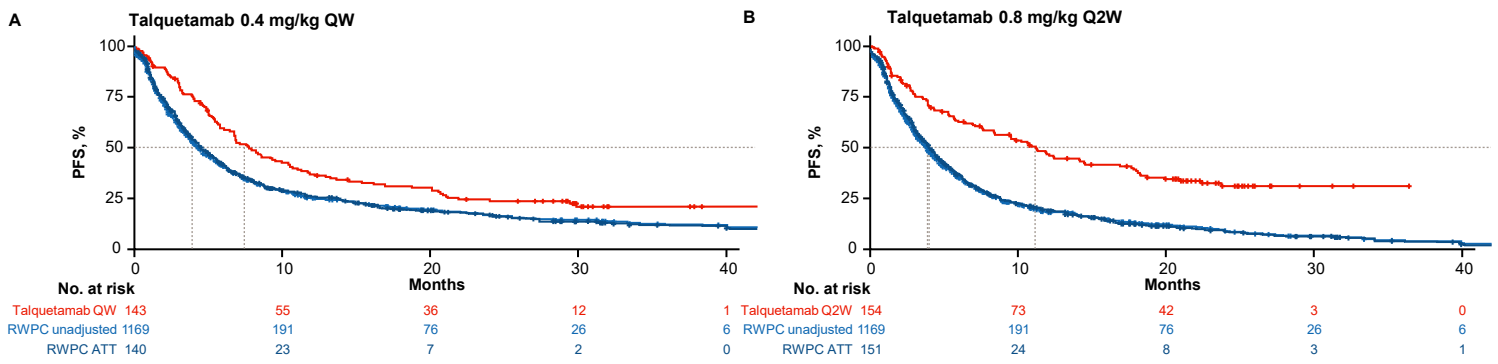
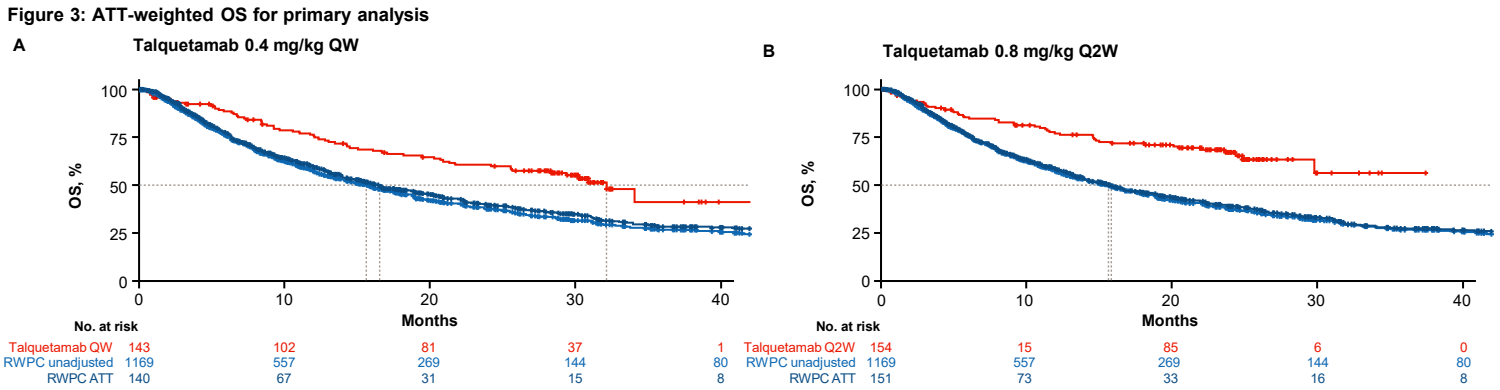


Figure 3: ATT-weighted OS for primary analysis



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