

Real-World Characteristics, Utilization, and Effectiveness Among Patients With Heavily Pretreated Relapsed/Refractory Multiple Myeloma Receiving Talquetamab in Large Community Oncology Practice

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Key Takeaway



This RW evidence study demonstrated that patients with heavily pretreated RRMM receiving talquetamab in a large community oncology practice achieved an ORR of 75.7% and a median RW PFS of 5.4 months, despite most patients having high cytogenetic risk and/or prior exposure to BCMA-targeted therapies; no new safety signals were identified

Conclusions



Results of this RW study in a large community setting highlight the strong treatment response to talquetamab in patients with heavily pretreated RRMM and ≥4 prior LOTs; time to response was short and responses were durable



While further RW data are needed to understand the long-term outcomes of talquetamab in large community settings, data from this study support the feasibility and tolerability of talquetamab treatment

Acknowledgments

This study was sponsored by Johnson & Johnson. Medical writing and editorial support were provided by Jessica A Weaver, PhD, of Lumanity Communications Inc., and were funded by Johnson & Johnson.

Disclosure

RCP is an employee of Johnson & Johnson and may hold stock or stock options in the company.

Introduction

- For patients with relapsed/refractory multiple myeloma (RRMM), outcomes can worsen with each successive line of therapy (LOT), highlighting the challenge of maintaining responses in this vulnerable patient population over time^{1,2}
- Talquetamab is a first-in-class GPRC5D×CD3 bispecific antibody approved for the treatment of patients with RRMM who have received ≥4 prior LOTs and are triple-class exposed to a proteasome inhibitor, an immunomodulatory drug, and an anti-CD38 monoclonal antibody³
- In the pivotal phase 1/2 MonumentAL-1 study (ClinicalTrials.gov Identifier: NCT03399799/NCT04634552), talquetamab demonstrated clinically meaningful efficacy and safety outcomes, including deep and durable responses with no new safety concerns identified, in heavily pretreated patients with RRMM³⁻⁶
- However, real-world (RW) data on talquetamab use outside of clinical trials, especially within community settings, remain limited
- The objective of this study was to describe patient characteristics, treatment patterns, and effectiveness in patients with RRMM who were treated with talquetamab in a large community oncology practice

Methods

Study design and patient population

- This was an RW, retrospective, observational study using deidentified structured and unstructured patient data from multiple databases, including iKnowMed electronic health record systems, the Molecular Data Warehouse, and laboratory information systems, available for patients treated with talquetamab at Texas Oncology, a large network of community oncology practices spanning 300 locations in Texas
- The study design is shown in **Figure 1**
- Adult patients aged ≥18 years with RRMM and ≥4 prior LOTs who were treated with talquetamab monotherapy or combination regimens between August 9, 2023, and June 30, 2025, were identified from databases of patients treated at the community oncology practices of Texas Oncology
 - Patients receiving talquetamab as part of a clinical trial at any time were excluded
- The index date was defined as the date of initiation of talquetamab-based treatment
- Patients were followed from the index date until the earliest of the following: last activity date, death, or end of the data period (February 28, 2026)

Results

Patient characteristics

- Overall, 44 patients who had received talquetamab and met the inclusion criteria were included in this study, including 37 patients who received non-bridging talquetamab therapy
 - Baseline demographic and clinical characteristics are summarized (**Table 1**)
 - The median (range) age was 67.5 (34-84) years, with 27 (61.4%) patients aged ≥65 years; 25 (56.8%) patients were male, 29 (65.9%) were White, and 6 (13.6%) were Hispanic or Latino
 - Most (65.9%) patients had high cytogenetic risk
 - The median (range) number of prior LOTs at index was 6 (3-14); the median (range) number of prior LOTs was 6 (5-14) in patients who received non-bridging talquetamab therapy and 5 (3-14) in those who received bridging talquetamab therapy
 - The median (range) duration of follow-up was 9.8 (0.6-29.1) months

Table 1: Demographic and clinical characteristics

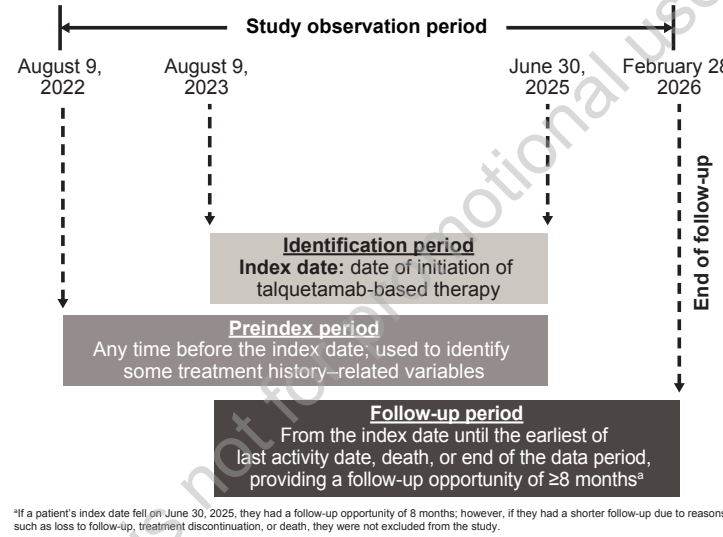
Characteristic	All patients (N=44)	Patients with non-bridging talquetamab therapy (N=37)
Age at index		
Mean (SD), years	66.4 (10.7)	66.8 (11.0)
Median (range), years	67.5 (34-84)	67.0 (34-84)
<65 years, n (%)	17 (38.6)	14 (37.8)
65 to <75 years, n (%)	17 (38.6)	13 (35.1)
≥75 years, n (%)	10 (22.7)	10 (27.0)
Sex, n (%)		
Male	25 (56.8)	21 (56.8)
Female	19 (43.2)	16 (43.2)
Race, n (%)		
White	29 (65.9)	23 (62.2)
Black or African American	2 (4.5)	2 (5.4)
Asian or Native Hawaiian or Other Pacific Islander	2 (4.5)	2 (5.4)
Other/unknown	11 (25.0)	10 (27.0)
Ethnicity, n (%)		
Not Hispanic or Latino	33 (75.0)	27 (73.0)
Hispanic or Latino	6 (13.6)	6 (16.2)
Unknown	5 (11.4)	4 (10.8)
Payer, n/N (%)		
Commercial	24/44 (54.5)	19/30 (63.3)
Medicare (Medicare Advantage or Medicare FFS)	7/44 (15.9)	7/30 (23.3)
Medicaid	1/44 (2.3)	1/30 (3.3)
Other	12/44 (27.3)	3/30 (10.0)
BMI at index, kg/m²		
Mean (SD)	26.8 (5.0)	25.9 (5.6)
R-ISS disease stage, n (%)		
I	5 (11.4)	5 (13.5)
II	8 (18.2)	8 (21.6)
III	25 (56.8)	21 (56.8)
Unknown	6 (13.6)	3 (8.1)
Cytogenetic risk status, n (%)		
High risk	29 (65.9)	23 (62.2)
del17p	15 (34.1)	12 (32.4)
t(4;14)	6 (13.6)	6 (16.2)
t(14;16)	3 (6.8)	3 (8.1)
t(14;20)	0	0
Gain 1q21	21 (47.7)	17 (45.9)
Amp 1q21	1 (2.3)	1 (2.7)
Standard risk	13 (29.5)	12 (32.4)
Unknown	2 (4.5)	2 (5.4)
ECOG PS score, n (%)		
0	14 (31.8)	10 (27.0)
1	17 (38.6)	14 (37.8)
2	2 (4.5)	2 (5.4)
Unknown	11 (25.0)	11 (29.7)
Number of prior LOTs		
Mean (SD)	6.7 (2.5)	6.8 (2.3)
Median (range)	6 (3-14)	6 (5-14)
Duration of follow-up, months		
Mean (SD)	10.6 (7.3)	10.9 (7.7)
Median (range)	9.8 (0.6-29.1)	9.9 (0.6-29.1)

SD, standard deviation; FFS, free-for-service; BMI, body mass index; R-ISS, Revised International Staging System; ECOG PS, Eastern Cooperative Oncology Group performance status; LOT, line of therapy.

References

1. Rodríguez-Lobato LG, et al. *Blood Cancer J*. 2025;15(1):103. 2. Dhakal B, et al. *Cancer Med*. 2025;14(15):e71093. 3. TALVEY™ (talquetamab-tgvs) [package insert]. Janssen Biotech, Inc.; 2025. 4. Chari A, et al. *N Engl J Med*. 2022;387(24):2232-2244. 5. Rasche L, et al. Presented at: European Hematology Association (EHA) Congress; June 13-16, 2024; Madrid, Spain. Poster P915. 6. Chari A, et al. *Lancet Haematol*. 2025;12(4):e269-e281.

Figure 1: Study design



*If a patient's index date fell on June 30, 2025, they had a follow-up opportunity of 8 months; however, if they had a shorter follow-up due to reasons such as loss to follow-up, treatment discontinuation, or death, they were not excluded from the study.

- Most (84.1%) patients had prior exposure to B-cell maturation antigen (BCMA)-targeted therapies, and 27 (61.4%) patients had received a hematopoietic stem cell transplant (**Table 2**)

Table 2: Prior exposure to BCMA-targeted therapies and hematopoietic stem cell transplant

Prior treatment type, n (%)	All patients (N=44)	Patients with non-bridging talquetamab therapy (N=37)
Any BCMA-targeted therapy	37 (84.1)	33 (89.2)
CAR-T		
Ciltacabtagene autoleucl	15 (34.1)	11 (29.7)
Idecabtagene vicleucl	12 (27.3)	11 (29.7)
BsAb		
Teclistamab	20 (45.5)	19 (51.4)
Eliranatamab	2 (4.5)	2 (5.4)
ADC		
Belantamab	4 (9.1)	3 (8.1)
Hematopoietic stem cell transplant	27 (61.4)	22 (59.5)

BCMA, B-cell maturation antigen; CAR-T, chimeric antigen receptor T cell; BsAb, bispecific antibody; ADC, antibody-drug conjugate.

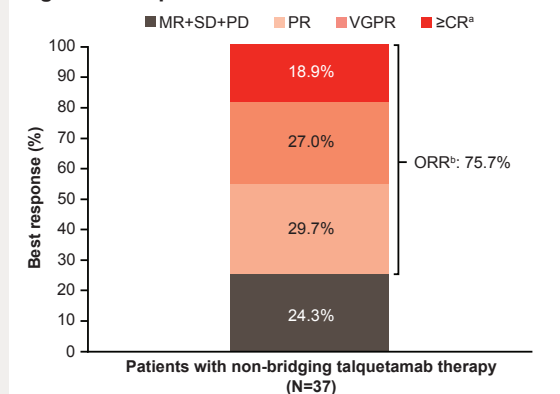
SUD setting and treatment patterns

- Of the 44 patients, 22 (50.0%) completed SUD with talquetamab in a hospital observation or outpatient setting and 19 (43.2%) completed SUD in an inpatient setting; the SUD setting was unknown for 3 (6.8%) patients
 - Talquetamab was received by patients primarily as non-bridging therapy (n=37 [84.1%]), followed by bridging therapy (n=7 [15.9%])
 - Among patients with non-bridging talquetamab therapy (n=37), the mean/median (standard deviation [SD]; range) duration of treatment was 7.1 months/5.3 months (6.6; 0-28.4) and the Kaplan-Meier-estimated treatment discontinuation rate at 9 months was 67.6%
 - Thirty patients discontinued non-bridging talquetamab therapy; among these patients, the primary reasons for discontinuation were disease progression (66.7%), death (20.0%), adverse events/toxicity (6.7%), and other reasons (3.3%)

Efficacy

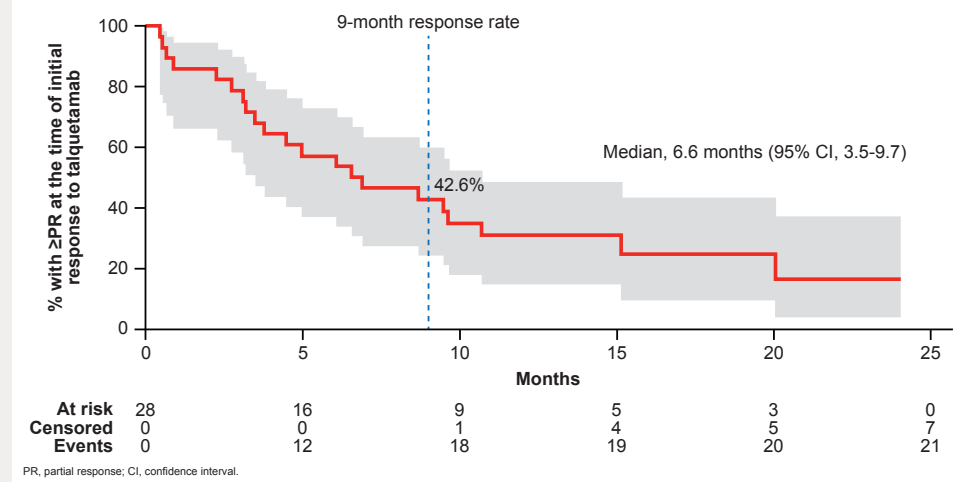
- At a median follow-up of 9.8 months, among the 37 patients with non-bridging talquetamab therapy, the overall response rate (ORR) was 75.7% (**Figure 2**)
 - Notably, among the 28 patients who responded to talquetamab, the mean/median (SD; range) time to best response was 3.6 months/1.8 months (4.2; 0.4-19.4)
 - Among the 28 patients who responded to talquetamab, the Kaplan-Meier-estimated median duration of response was 6.6 months (95% confidence interval [CI], 3.5-9.7), with a 9-month response rate of 42.6% (**Figure 3**)

Figure 2: Response rates



MR, minimal response; SD, stable disease; PD, progressive disease; PR, partial response; VGPR, very good partial response; CR, complete response; ORR, overall response rate. *CR included CR and stringent CR. For CR and stringent CR, the physician confirmed bone marrow transplant and pangenetral/central cells first. Includes PR, VGPR, and CR. Physician-reported response was obtained from clinical notes, not including all labs. Note: percentages may not sum to 100% due to rounding.

Figure 3: Duration of response to talquetamab



PR, partial response; CI, confidence interval.

Study outcomes

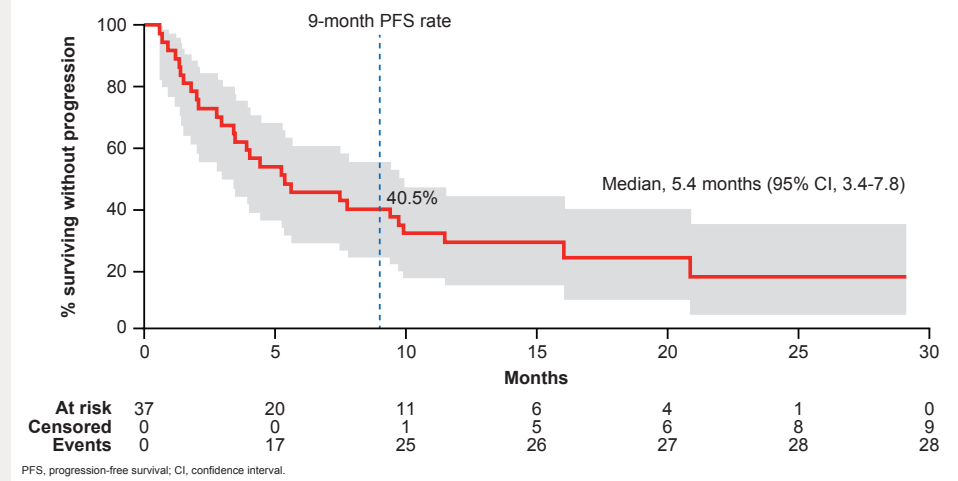
- Patient demographic and clinical characteristics were collected during the baseline period, which was defined as 12 months prior to the index date
- Treatment patterns, including the setting of talquetamab step-up dosing (SUD) and rates of treatment discontinuation, are reported
- Response rates, time to best response, duration of response, RW progression-free survival (RW PFS), and overall survival (OS) are reported
- Pretreatment medications ordered during SUD, adverse events, and tocilizumab use for cytokine release syndrome (CRS) treatment during SUD are also described

Data analysis

- Study measures were descriptively summarized, and the Kaplan-Meier method was used to estimate time-to-event outcomes
- Duration of treatment, treatment discontinuation rates, and clinical outcomes were described only for patients who received non-bridging talquetamab therapy

- Among the 37 patients with non-bridging talquetamab therapy, the median RW PFS was 5.4 months (95% CI, 3.4-7.8), with a 9-month RW PFS rate of 40.5% (**Figure 4**)
- Furthermore, among these patients, the median OS was 11.7 months (95% CI, 6.9-29.1), with a 9-month OS rate of 56.5%

Figure 4: Real-world progression-free survival



Adverse events and supportive care

- Pretreatment medication use during SUD is presented in **Table 3**
- A total of 28 (63.6%) patients who received talquetamab developed dysgeusia (**Table 3**)
 - All dysgeusia events were grade 1
 - Of the 28 patients, 27 (96.4%) had resolution of dysgeusia; the median (range) time to resolution was 114 days (7-317)
- A total of 20 (45.5%) patients who received talquetamab developed CRS (**Table 3**)
 - Most CRS events were grade 1
 - Tocilizumab was used as a supportive care treatment for CRS events that developed during SUD in 5/20 (25.0%) patients
- Overall, 4 (9.1%) patients developed immune effector cell-associated neurotoxicity syndrome (ICANS [grade 1, n=3; grade 2, n=1]; **Table 3**)

Table 3: Adverse events and supportive care

	All patients (N=44)
Pretreatment medications ordered during SUD, n (%)^a	
Histamine-1 receptor antagonist (eg, diphenhydramine)	24 (54.5)
Steroid (eg, dexamethasone)	18 (40.9)
Antipyretic (eg, acetaminophen)	16 (36.4)
Evidence of skin toxicity, n (%)	
n	20 (45.5)
Grade 1	18 (90.0)
Grade 2	2 (10.0)
Evidence of nail toxicity, n (%)	
n	13 (29.5)
Grade 1	13 (100)
Evidence of dysgeusia, n (%)	
n	28 (63.6)
Grade 1	28 (100)
Evidence of CRS, n (%)	
n	20 (45.5)
Grade 1	17 (85.0)
Grade 2	3 (15.0)
Patients receiving tocilizumab as treatment for CRS during SUD, n (%)	
n	20
No	15 (75.0)
Yes	5 (25.0)
Evidence of ICANS, n (%)	
n	4 (9.1)
Grade 1	3 (75.0)
Grade 2	1 (25.0)
Evidence of infections, n (%)	
n	17 (38.6)

SUD, step-up dosing; CRS, cytokine release syndrome; ICANS, immune effector cell-associated neurotoxicity syndrome.

^aPretreatment medications were not mutually exclusive.

