PA-007

Talquetamab Dosing Strategies in the United States: Real-World Insights From Over 250 Patients

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Key Takeaways

- In this real-world analysis of talquetamab utilization, talquetamab recipients were heavily pretreated, with nearly 60% of patients having received prior BCMA-targeted therapy
- Approximately one-third of patients received SUD in an outpatient setting
- Q2W dosing was the most common schedule, both at initiation and at the end of follow-up, with several patients switching to Q4W dosing after initial treatment at Q2W
- Median time to next treatment was not reached, suggesting that talquetamab was effective in a real-world setting

Conclusions

- In this real-world study among patients treated with talquetamab in the United States, talquetamab was predominantly given as a monotherapy, while approximately 10% of patients received talquetamab as part of a combination therapy
- While most patients completed talquetamab SUD in an all-inpatient setting, 30% and 4% of patients completed talquetamab SUD in an all-outpatient setting and in a hybrid inpatient/outpatient setting, respectively
- The most commonly observed starting talquetamab dosing schedule was Q2W. Some patients switched to less frequent dosing, with a median time to less frequent dosing of 4.7 months
- Less than a quarter of patients had initiated a next LOT by the end of follow-up, with the median time to next treatment not yet reached

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Disclosures

RB served in a consulting role for Adaptive Biotechnologies, Bristol Myers Squibb, Caribou Biosciences, Genentech, Gilead/Kite, GSK, Johnson & Johnson, Karyopharm, Legend Biotech, Pfizer, Poseida Therapeutics, Sanofi, and SparkCures; and participated in research for AbbVie, Bristol Myers Squibb, Johnson & Johnson, Novartis, Pack Health, Prothena, and Sanofi.

Introduction

- Talquetamab, a first-in-class GPRC5D-targeting bispecific monoclonal antibody, was approved in the United States for the treatment of patients with relapsed/refractory multiple myeloma (RRMM) after ≥4 prior lines of therapy (LOTs) and triple-class exposure to a proteasome inhibitor, an immunomodulatory drug, and an anti-CD38 monoclonal antibody[1]
  - The approval of talquetamab was based on promising data from the phase 1/2 MonumenTAL-1 study (ClinicalTrials.gov Identifier: NCT03399799/NCT04634552) in heavily pretreated patients with RRMM[2,3]
  - Talquetamab is approved at 2 dosing schedules: a weekly (QW) schedule consisting of 3 step-up dosing (SUD) doses followed by talquetamab 0.4 mg/kg QW and a biweekly (every 2 weeks; Q2W) schedule consisting of 4 SUD doses followed by talquetamab 0.8 mg/kg Q2W[1]
- Real-world data on talquetamab SUD, dosing patterns, and time to less frequent dosing (LFD) after starting QW or Q2W dosing are limited. Earlier analyses of talquetamab utilization patterns showed that talquetamab was mostly used as a monotherapy in the real-world setting, with most patients on a Q2W schedule[4]
- In this analysis, we aimed to enhance understanding of demographic and clinical characteristics, dosing practices, and clinical use scenarios in the real-world setting among patients treated with talquetamab from the Komodo Healthcare Map™ database

Methods

Study design

- In this real-world, retrospective, observational, descriptive cohort study, patients with multiple myeloma (MM) who received talquetamab therapy between August 9, 2023 (US approval date), and January 10, 2025, were identified from the Komodo Healthcare Map™ database (**Figure 1**)
- The index date was the date of the first outpatient talquetamab SUD dose (3 mg/1.5 mL vial size use) claim or the admission date of an inpatient talquetamab encounter

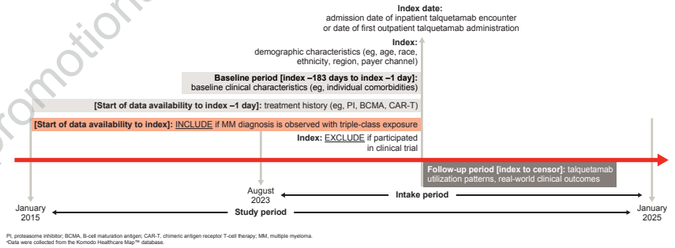
Study population

- Patients ≥18 years of age with ≥1 diagnosis code for MM any time prior to or on the index date and ≥1 medical or pharmacy claim for commercial talquetamab were identified
- Patients had triple-class–exposed RRMM (≥1 proteasome inhibitor, ≥1 immunomodulatory drug, and ≥1 anti-CD38 monoclonal antibody)
- Patients enrolled in clinical trials were excluded

Statistical analysis

- Patient demographic and clinical characteristics were described for the 6-month baseline period prior to the index date. Talquetamab administration, utilization patterns, and time to next treatment during the follow-up period were also evaluated. All data were reported descriptively

Figure 1: Study design[a]



PI, proteasome inhibitor; BCMA, B-cell maturation antigen; CAR-T, chimeric antigen receptor T-cell therapy; MM, multiple myeloma.
[a]Data were collected from the Komodo Healthcare Map™ database.

Results

Patient characteristics

- A total of 257 patients treated with talquetamab were included in the study (median post-index follow-up: 5.2 months), with a median (interquartile range [IQR]) age of 67.0 (62.0-74.0) years at the index date (**Table 1**)
  - Most patients were male (53.3%), White (64.2%), and had Medicare insurance (66.5%)
  - The median (IQR) duration since MM diagnosis was 6.1 (3.8-8.1) years
  - Overall, 113 (44.0%) patients had prior penta-drug exposure (**Table 1**)

Table 1: Demographic and clinical characteristics

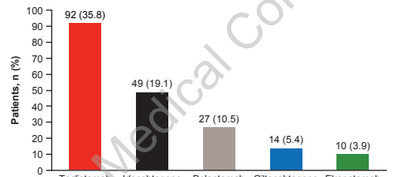
Characteristic[a]	Patients with RRMM with an eligible talquetamab claim (n=257)
Age at index	
Median (IQR), years	67.0 (62.0-74.0)
<65 years, n (%)	96 (37.4)
65-69 years, n (%)	60 (23.3)
70-74 years, n (%)	47 (18.3)
≥75 years, n (%)	54 (21.0)
Sex, n (%)	
Male	137 (53.3)
Female	120 (46.7)
Race, n (%)	
White	165 (64.2)
Black	39 (15.2)
Hispanic	25 (9.7)
Other/unknown	28 (10.9)
US region, n (%)	
South	91 (35.4)
West	60 (23.3)
Northeast	55 (21.4)
Midwest	51 (19.8)
Insurance plan type, n (%)	
Medicare	171 (66.5)
Commercial	59 (23.0)
Medicaid	10 (3.9)
Commercial and Medicare	8 (3.1)
Other	9 (3.5)
Duration since MM diagnosis, median (IQR), years	6.1 (3.8-8.1)
Duration of post-index follow-up,[b] median (IQR), months	5.2 (2.5-8.2)
Treatment history, n (%)	
Prior penta-drug exposed[c]	113 (44.0)
Key comorbidities of interest,[d] n (%)	
Hypogammaglobulinemia	118 (45.9)
Infections	117 (45.5)
Peripheral neuropathy	108 (42.0)
Extramedullary plasmacytoma	12 (4.7)
Plasma cell leukemia	12 (4.7)

RRMM, relapsed/refractory multiple myeloma; IQR, interquartile range; US, United States; MM, multiple myeloma; PI, proteasome inhibitor; IMiD, immunomodulatory agent.
[a]Patient demographic and clinical characteristics were described for the 6-month baseline period prior to the index date.
[b]Post-index follow-up was determined by the last medical claim activity, death date, or end of data.
[c]Exposed to ≥2 PIs, ≥2 IMiDs, and ≥1 anti-CD38 monoclonal antibody.
[d]Conditions present within 6 months prior to the index date.

Treatment history

- Patients had received a median (IQR) of 5 (4-7) prior LOTs
- Prior exposure to commercial B-cell maturation antigen (BCMA)–targeted therapy occurred in 150 (58.4%) patients; among these therapies, prior exposure to teclistamab was the most common (**Figure 2**)
- Overall, 143 (55.6%) patients had prior exposure to T-cell–redirecting therapies (ie, bispecific or chimeric antigen receptor T-cell [CAR-T] therapy)

Figure 2: Commercial BCMA-targeted therapies prior to index date[a] (n=257)



BCMA, B-cell maturation antigen.
[a]Some patients had prior treatment with ≥1 therapy.

Talquetamab utilization

- The majority of patients received talquetamab as a monotherapy (n=232 [90.3%]), followed by those who received talquetamab as part of a combination regimen (MM medication initiated within 2 months of index date) with teclistamab (n=4 [1.6%]), pomalidomide (n=4 [1.6%]), or other therapies (**Table 2**)
- Talquetamab was used as a bridging therapy to CAR-T therapy for a small proportion of patients
  - There were 37 (14.4%) patients who received talquetamab after apheresis, and 17 (6.6%) patients were observed to receive CAR-T infusion at the data cutoff

Table 2: Talquetamab utilization as a monotherapy and as combination therapy in patients with RRMM and an eligible talquetamab claim

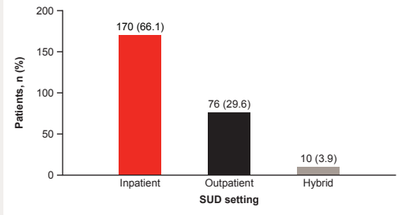
Talquetamab regimen, n (%)[a]	Patients (n=257)
Talquetamab	232 (90.3)
Talquetamab + teclistamab	4 (1.6)
Talquetamab + pomalidomide	4 (1.6)
Talquetamab + cyclophosphamide	3 (1.2)
Talquetamab + elranatamab	2 (0.8)
Talquetamab + bendamustine	2 (0.8)
Talquetamab + bortezomib	1 (0.4)
Talquetamab + carfilzomib	1 (0.4)
Talquetamab + carfilzomib + cyclophosphamide	1 (0.4)
Talquetamab + daratumumab	1 (0.4)
Talquetamab + carfilzomib + daratumumab + pomalidomide	1 (0.4)
Talquetamab + carfilzomib + isatuximab	1 (0.4)
Talquetamab + isatuximab + pomalidomide	1 (0.4)
Talquetamab + carfilzomib + isatuximab + pomalidomide	1 (0.4)
Talquetamab + cyclophosphamide + pomalidomide	1 (0.4)
Talquetamab + selinexor	1 (0.4)

RRMM, relapsed/refractory multiple myeloma.
[a]Combination regimens were identified within 2 months after talquetamab initiation.

SUD practice

- The majority of patients completed talquetamab SUD solely in the inpatient setting (n=170 [66.1%]), followed by the outpatient setting for 76 (29.6%) patients. Ten (3.9%) patients received SUD doses using a hybrid model consisting of both inpatient and outpatient administrations (**Figure 3**)

Figure 3: Setting of care for talquetamab SUD administration[a] (n=257)

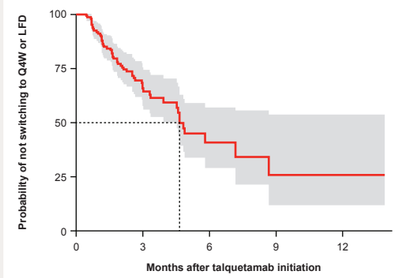


SUD, step-up dosing.
[a]The setting of care for talquetamab SUD could not be determined for 1 patient.

Dosing practices

- Overall, among the 152 patients on QW or Q2W dosing with ≥3 doses after SUD, 56 (36.8%) patients switched to every 4 weeks (Q4W) dosing or LFD (median time to switching, 4.7 months; **Figure 4**)
- At the end of follow-up, among patients with ≥3 treatment doses after SUD, 24 of 52 (46.2%) patients initially on QW dosing switched to Q2W dosing and 11 of 52 (21.2%) patients initially on QW dosing switched to every 3 weeks (Q3W) dosing or LFD, while 28 of 100 (28.0%) patients initially on Q2W dosing switched to Q3W dosing or LFD (**Table 3**)
- At the end of follow-up, among 183 patients with ≥3 treatment doses after SUD, 23 (12.6%), 107 (58.5%), 8 (4.4%), and 27 (14.8%) patients were on QW, Q2W, Q3W, and Q4W dosing schedules, respectively (**Figure 5**)

Figure 4: Time to first LFD among patients on QW or Q2W dosing with ≥3 talquetamab treatment doses after SUD (n=152)



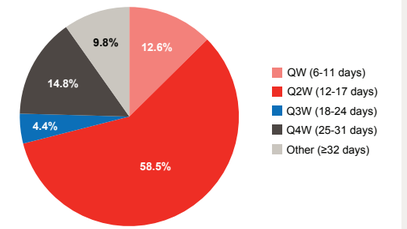
LFD, less frequent dosing; QW, weekly; Q2W, biweekly (every 2 weeks); SUD, step-up dosing; Q4W, every 4 weeks.

Table 3: Dosing frequency at the end of follow-up by initial dosing schedule among patients with ≥3 talquetamab treatment doses after SUD

Frequency of the first treatment	Frequency at the end of follow-up, n (%)				
	QW (6-11 days)	Q2W (12-17 days)	Q3W (18-24 days)	Q4W (25-31 days)	Other (≥32 days)
QW (6-11 days; n=52)	17 (32.7)	24 (46.2)	2 (3.8)	3 (5.8)	6 (11.5)
Q2W (12-17 days; n=100)	5 (5.0)	67 (67.0)	4 (4.0)	16 (16.0)	8 (8.0)

SUD, step-up dosing; QW, weekly; Q2W, biweekly (every 2 weeks); Q3W, every 3 weeks; Q4W, every 4 weeks.

Figure 5: Dosing frequency at the end of follow-up among patients with ≥3 talquetamab treatment doses after SUD (n=183)

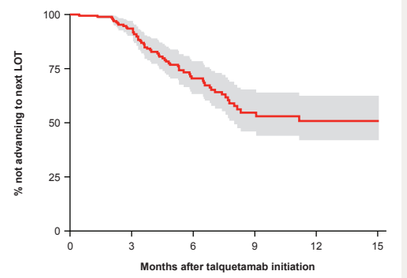


SUD, step-up dosing; QW, weekly; Q2W, biweekly (every 2 weeks); Q3W, every 3 weeks; Q4W, every 4 weeks.

Time to next treatment

- Among 257 patients who initiated talquetamab treatment, 58 (22.6%) had initiated a next LOT by the end of follow-up
  - Median time to next treatment was not reached (**Figure 6**)

Figure 6: Time to next treatment[a] (n=257)



LOT, line of therapy; CAR-T, chimeric antigen receptor T-cell therapy.
[a]Patients were considered to have reached the next treatment if they initiated a next LOT or died. Date of next treatment was defined as date of initiation of a next LOT or date of death, whichever occurred earlier. Patients were censored at the earliest of last medical claim activity date, end of data availability, clinical trial participation after the index date, or CAR-T infusion date.

References

1. TALVEY™ (talquetamab-tgvs) [package insert]. Janssen Biotech, Inc.; 2023. 2. Chari A, et al. *N Engl J Med.* 2022;387(24):2232-2244. 3. Rasche L, et al. Presented at: European Hematology Association (EHA) Congress; June 13-16, 2024; Madrid, Spain. Poster P915. 4. Banerjee R, et al. Presented at: International Myeloma Society (IMS) Annual Meeting; September 25-28, 2024; Rio de Janeiro, Brazil. Poster P-381.

Multiple Myeloma

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