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Long-Term Efficacy and Safety Results From the Phase 1/2 MonumenTAL-1 Study of Talquetamab, a GPRC5D×CD3 Bispecific Antibody, in Patients With Relapsed/Refractory Multiple Myeloma

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Key Takeaway

With long-term follow-up, talquetamab continues to demonstrate deep and durable responses and no new safety signals in patients with RRMM

Conclusions

High ORRs of ≥70% in the QW and Q2W TCR-naive cohorts and 67% in the prior TCR cohort were achieved with long-term follow-up at the approved talquetamab doses

Patients continued to demonstrate durable responses, with longer DORs observed in patients with deeper response

The safety profile was consistent with previous reports; together with the efficacy data, these results highlight the overall clinical benefit of the approved talquetamab doses and the flexibility to adjust dosing once response is achieved

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Poster

Supplementary material

https://www.congresshub.com/Oncology/IMS2024/Talquetamab/Ye-Long-Term

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Disclosures

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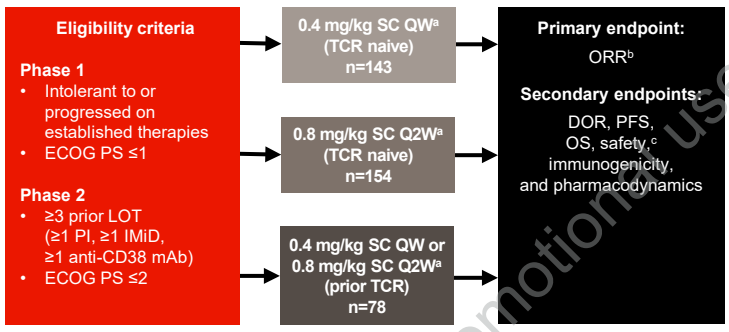
Introduction

- Talquetamab is the first approved bispecific antibody (BsAb) targeting the novel antigen G protein–coupled receptor class C group 5 member D (GPRC5D) for the treatment of patients with relapsed/refractory multiple myeloma (RRMM)[1,2]
- In previously reported results from MonumenTAL-1, talquetamab showed overall response rates (ORRs) of >71% in patients naive to prior T-cell redirection therapy (TCR) and 65% in patients with prior TCR at the approved subcutaneous (SC) doses of 0.4 mg/kg weekly (QW) and 0.8 mg/kg every other week (Q2W)[3]
- Exposure–response (E–R) analyses showed increased ORRs with SC doses that plateaued at or above the approved doses (**Supplemental Figure 1**)[4,5]
  - An E–R relationship was observed for grade 1/2 dysgeusia; however, rates were similar at both approved doses (**Supplemental Figure 2**)[4,5]
- Early onset of GPRC5D-related adverse events (AEs), including dysgeusia, is associated with a higher likelihood of response; prior data support flexibility to adjust talquetamab dosing in responders to mitigate AEs while maintaining efficacy[6]
- Here, we report the long-term follow-up results of patients receiving talquetamab at the approved doses

Methods

- MonumenTAL-1 (NCT03399799/NCT04634552) enrolled patients with RRMM who were naive or exposed to prior TCR (**Figure 1**)

Figure 1: MonumenTAL-1 phase 1/2 study design



[a]With 2–3 step-up doses. [b]Assessed by IRC using International Myeloma Working Group criteria.[7,8] [c]CRS and ICANS were graded by ASTCT criteria[9]; all other AEs were graded by CTCAE v4.03. ASTCT, American Society of Transplantation and Cellular Therapy; CRS, cytokine release syndrome; CTCAE, Common Terminology Criteria for Adverse Events; DOR, duration of response; ECOG PS, Eastern Cooperative Oncology Group performance status; ICANS, immune effector cell–associated neurotoxicity syndrome; IMiD, immunomodulatory drug; IRC, independent review committee; LOT, line of therapy; mAb, monoclonal antibody; OS, overall survival; PFS, progression-free survival; PI, proteasome inhibitor.

Results

Baseline characteristics

- Baseline characteristics across the QW, Q2W, and prior TCR cohorts were similar to previous reports,[3] with the exception of more African American patients in the current analysis (n=32/375, 9%)

Efficacy

- As of January 29, 2024, ORR was 74%, 70%, and 67% for patients in the QW, Q2W, and prior TCR cohorts, respectively, with very good partial response (VGPR) or better rates >55% across cohorts (**Supplemental Figure 3**)
  - ORRs were consistent across high-risk subgroups, except patients with extramedullary disease, who had lower ORRs (**Supplemental Table 1**)
  - In patients with prior TCR, ORR was 71% (n=40/56) with prior chimeric antigen receptor (CAR)-T cell therapy and 58% (n=15/26) with prior BsAb therapy
- Median time to first response (range) was 1.2 (0.2–10.9), 1.3 (0.2–4.9), and 1.2 (0.2–7.5) mo, respectively
  - Median time to VGPR as best response was 2.2 (0.8–6.2), 2.3 (0.3–18.9), and 1.8 (0.8–6.4) mo and to complete response (CR) or better as best response was 3.0 (1.1–12.7), 5.8 (1.2–16.8), and 2.7 (1.2–18.7) mo, respectively
- DOR, PFS, and OS are shown in **Table 1**
  - Better durability was observed in the Q2W vs QW cohort
  - In patients with prior TCR, the median PFS (mPFS) was 12.3 mo with prior CAR-T cell therapy and 4.1 mo with prior BsAb therapy
- In the Q2W cohort, patients receiving ≤4 vs ≥5 prior LOT had improved DOR (**Figure 2**), PFS (median 17.8 vs 8.5 mo), and OS (24-mo rate 75% vs 59%), indicating potential for better outcomes in earlier LOT; no differences by prior LOT were observed in the QW cohort
- In the Q2W cohort, 40% of patients achieved a ≥CR, most by ~12 mo (**Figure 3A**); although a ≥CR may take longer to achieve, patients with deeper responses had a longer DOR (**Figure 3B**)

Table 1: Efficacy outcomes

Outcome	0.4 mg/kg SC QW (n=143)	0.8 mg/kg SC Q2W (n=154)	Prior TCR (n=78)
mFU, mo	29.8	23.4	20.5
mDOR, mo (95% CI)[a]	9.5 (6.7–13.4)	17.5 (12.5–NE)	N/A[b]
mDOR in patients with ≥CR, mo (95% CI)	28.6 (19.4–NE)	NR (21.2–NE)	N/A[b]
mPFS, mo (95% CI)	7.5 (5.7–9.4)	11.2 (8.4–14.6)	7.7 (4.1–14.5)
24-mo OS rate, % (95% CI)	60.6 (51.7–68.4)	67.1 (58.3–74.4)	57.3 (43.5–68.9)

[a]n=106 (QW), n=107 (Q2W), and n=52 (prior TCR). [b]Not reported due to heavy censoring from 12 to 20 mo; the estimate may not be reliable at this time point. See **Supplemental Table 2** for efficacy outcomes in the USPI population (≥4 prior LOT). mDOR, median duration of response; mFU, median follow-up; N/A, not available; NE, not estimable; NR, not reached; USPI, United States prescribing information.

Figure 2: DOR by prior LOT in the Q2W cohort

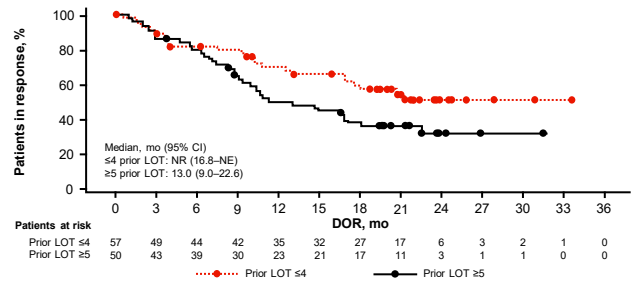


Figure 3: Time to first confirmed response per IRC (A) and DOR by depth of response (B) in the Q2W cohort

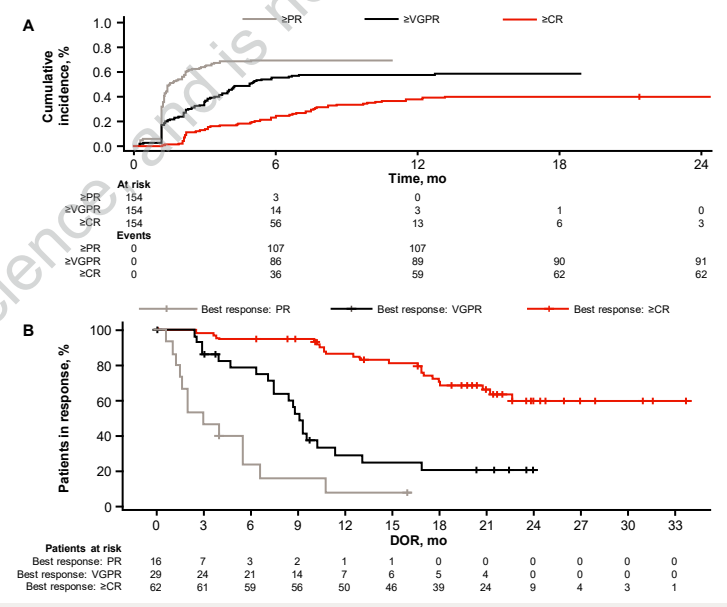
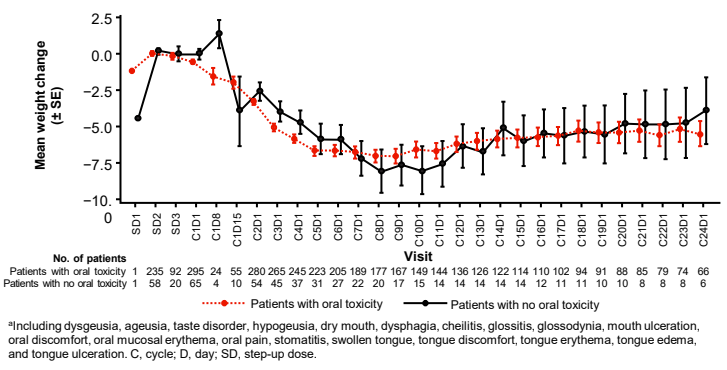
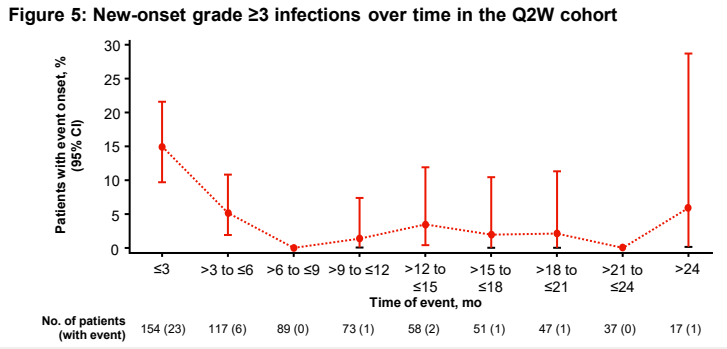


Figure 4: Weight loss in patients with oral toxicity[a] in the QW and Q2W cohorts



[a]Including dysgeusia, ageusia, taste disorder, hypogeusia, dry mouth, dysphagia, cheilitis, glossitis, glossodynia, mouth ulceration, oral discomfort, oral mucosal erythema, oral pain, stomatitis, swollen tongue, tongue discomfort, tongue erythema, tongue edema, and tongue ulceration. C, cycle; D, day; SD, step-up dose.

Figure 5: New-onset grade ≥3 infections over time in the Q2W cohort



Safety

- The safety profile across cohorts was consistent with previous results[3]; no new safety signals were reported
- Weight loss, as assessed by vital signs, occurred in 39%, 34%, and 39% of patients in the QW, Q2W, and prior TCR cohorts, respectively
  - Weight loss was evident early, then stabilized and improved over time, including in patients with oral toxicities (**Figure 4**)
- Infection rates remained lower than in studies of BCMA-targeted BsAbs,[10,11] consistent with previous reports[3]; no increase in grade 3/4 infections was observed with longer follow-up (shown for the Q2W cohort; **Figure 5**)
- Modest intravenous immunoglobulin was required (16%, 14%, and 24% of patients, respectively)
- GPRC5D-associated AEs led to few dose reductions and discontinuations (**Table 2**); only 1 additional patient discontinued treatment since previous report[3]
- Similarly, overall rates of dose reductions and discontinuations due to AEs remained low at 15%, 10%, and 12% and 5%, 10%, and 5%, respectively
- There were no treatment-related deaths

Table 2: GPRC5D-associated AEs

Any-Grade AE, n (%)	0.4 mg/kg SC QW (n=143)	0.8 mg/kg SC Q2W (n=154)	Prior TCR (n=78)
Taste related[a]			
Total	103 (72.0)	110 (71.4)	59 (75.6)
Leading to dose reduction	10 (7.0)	6 (3.9)	4 (5.1)
Leading to discontinuation	0	3 (1.9)	0
Skin related[b]			
Total	81 (56.6)	113 (73.4)[e]	50 (64.1)
Leading to dose reduction	5 (3.5)	1 (0.6)	2 (2.6)
Leading to discontinuation	2 (1.4)	1 (0.6)	0
Nail related[c]			
Total	79 (55.2)	82 (53.2)	46 (59.0)
Leading to dose reduction	1 (0.7)	1 (0.6)	1 (1.3)
Leading to discontinuation	0	0	0
Rash related[d]			
Total	57 (39.9)[f]	46 (29.9)[g]	25 (32.1)[h]
Leading to dose reduction	1 (0.7)	1 (0.6)	0
Leading to discontinuation	0	0	0

[a]Including ageusia, dysgeusia, hypogeusia, and taste disorder. [b]Including skin exfoliation, dry skin, pruritus, and palmar-plantar erythrodysesthesia syndrome. [c]Including nail discoloration, nail disorder, onycholysis, onychomadesis, onychoclasis, nail dystrophy, nail toxicity, and nail ridging. [d]Including rash, maculopapular rash, erythematous rash, and erythema. [e]Including 1 (0.6%) grade 3/4 event. [f]Including 2 (1.4%) grade 3/4 events. [g]Including 8 (5.2%) grade 3/4 events. [h]Including 2 (2.6%) grade 3/4 events.

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Multiple Myeloma

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