ELSEVIER

Blood 144 (2024) 7851–7852

The 66th ASH Annual Meeting Abstracts

ONLINE PUBLICATION ONLY

907.OUTCOMES RESEARCH: PLASMA CELL DISORDERS

Real-World Characteristics, Step-up Dosing Patterns, and Outcomes in Patients with Multiple Myeloma Receiving Teclistamab at Texas Oncology Community-Based Treatment Centers

Yair Levy[1], *Nina Kim*[2], *Siraje Mahmud, PhD*[1], *Bingcao Wu*[2], *Laura Ensley*[1], *Dee Lin*[2], *Monica Lisi*[1], *Felice Yang*[3,2], *Lorraine Brisbin*[1], *Jessica Fowler, PhD*[2], *Laura Hester*[4], *Agne Paner-Straseviciute*[2], *Sian Walker*[5], *Christina Hearty*[2], *R. Steven Paulson*[1]

[1] Texas Oncology, Dallas, TX
[2] Janssen Scientific Affairs, LLC, Horsham, PA
[3] Acro Service Corporation, Livonia, MI
[4] Janssen R&D, LLC, Horsham, PA
[5] Sierra Medical Affairs, LLC, Truckee, CA

Background
Teclistamab was the first B-cell maturation antigen (BCMA) x CD3 bispecific antibody to gain US regulatory approval for relapsed/refractory multiple myeloma (MM) on 10/25/22. While teclistamab step-up dosing (SUD) was predominantly administered in inpatient and/or academic health systems soon after market availability, SUD administration models have been evolving (e.g., outpatient administration in community practices) with increasing familiarity with teclistamab. Literature on real-world examples of community-based SUD administration is needed to support expanded access of teclistamab for patients (pts). In this interim analysis of pts receiving teclistamab at Texas Oncology (TxO), one of the largest community-based oncology treatment centers in the US, we sought to describe real-world profiles, step-up dosing patterns, and outcomes in pts treated with teclistamab.

Methods
We conducted a retrospective review of patient charts and electronic medical records for adult pts with MM receiving teclistamab at TxO 10/26/22-2/29/24. Pts were indexed on first step-up dose and followed from the index date to the last activity, death, or end of data period, whichever occurred first. Baseline characteristics were captured during the 12-month pre-index period. All variables were summarized descriptively.

Results
15 pts met study criteria. The median age was 76 years (range: 55-83); 8 pts (53%) were ≥75 years. 53% were female, 87% White, 93% non-Hispanic, and 80% with commercial/Medicare Advantage insurance. At teclistamab initiation, 12 pts (80%) had an Eastern Cooperative Oncology Group (ECOG) score of 0-1; 4 (27%) had stage I and 6 (40%) had stage II on the Revised International Staging System. Six pts (40%) had high-risk cytogenetics. At baseline, 10 pts (67%) had presence of anemia, 9 (60%) had peripheral neuropathy, and 7 (47%) had renal impairment or failure.
The median time from MM diagnosis to teclistamab initiation was 4.4 years (range: 1.3-16.5). All pts received ≥4 prior lines of therapy (LOT) (range: 4-8); the median duration of the most recent LOT was 4.6 months (range: 0.2-17.5). Of the 2 pts (13%) with prior BCMA exposure, both received belantamab; the median time from belantamab to teclistamab initiation was 17.5 months (range: 16.2-18.8).
Six pts (40%) received SUD in a TxO outpatient facility; nine (60%) were referred outside of TxO for SUD, all of whom returned to TxO for the first treatment dose. CRS was observed in 7 pts (47%), all during the SUD period; none were hospitalized due to CRS. All 3 CRS events with known severity were grade 1. Similar CRS rates were observed among pts receiving SUD within TxO (50%) vs outside TxO (44%). No pts received primary prophylactic tocilizumab for CRS. One patient experienced ICANS of unknown grade; this patient was referred outside of TxO for SUD and received treatment during the admission to treat ICANS.
At a median follow-up of 5.8 (range: 0.5-14.0) months, 10 pts (67%) experienced an infection during teclistamab treatment, of whom, 8 received outpatient treatment, 1 was hospitalized, and 1 did not receive treatment. No data on infection grade was available. Eight pts (53%) received immunoglobulin (IVIG) as primary prophylaxis for infection; IgG levels were <400 mg/dL prior to IVIG administration in 6 pts (86%) who received IVIG. No pts discontinued teclistamab due to CRS, ICANS, or

infections. The overall response rate (ORR) observed in this population was 73% (partial response [PR]: 20%; very good PR: 7%; complete response [CR]: 40%; stringent CR: 7%).

Conclusion

In this early analysis of real-world pts receiving teclistamab at TxO, we found that close to half of the pts received SUD in the outpatient setting and all pts who received SUD outside TxO returned to TxO for the first treatment dose. Pts were observed to be elderly, heavily pretreated, and with significant comorbidities; a high proportion had high-risk cytogenetics. Despite this, we observed a high ORR and no patients discontinued teclistamab due to CRS, ICANS, or infections. The results should be interpreted with caution due to short follow-up and small sample size. Nonetheless, these initial outcomes support the feasibility of administering teclistamab using a community-based approach, which is important to ensure access for pts in need of novel therapies. This analysis will be updated with more pts and longer follow-up.

Disclosures Levy: *Cellectar Biosciences:* Research Funding; *AbbVie:* Consultancy, Honoraria; *Amgen:* Consultancy, Honoraria; *BeiGene:* Consultancy, Honoraria; *Bristol-Myers Squibb:* Consultancy, Honoraria; *Genmab:* Consultancy, Honoraria; *Gilead:* Consultancy, Honoraria; *Incyte:* Consultancy, Honoraria; *Jazz Pharmaceuticals:* Consultancy, Honoraria; *Karyopharm:* Consultancy, Honoraria; *Novartis:* Consultancy, Honoraria; *Pfizer:* Consultancy, Honoraria; *Seagen:* Consultancy, Honoraria; *Takeda:* Consultancy, Honoraria. **Kim:** *Johnson & Johnson:* Current Employment, Current equity holder in publicly-traded company. **Wu:** *Johnson & Johnson:* Current Employment, Current equity holder in publicly-traded company. **Ensley:** *Texas Oncology:* Current Employment. **Lin:** *Johnson & Johnson Innovative Medicine:* Current Employment, Current equity holder in publicly-traded company, Current holder of *stock options* in a privately-held company. **Lisi:** *Texas Oncology LLC:* Current Employment. **Yang:** *Acro Service Corporation:* Current Employment; *Johnson and Johnson:* Current Employment. **Brisbin:** *Precision Health Informatics, Inc.:* Current equity holder in private company; *Texas Oncology:* Current Employment. **Fowler:** *Johnson & Johnson Innovative Medicine:* Current Employment; *Amgen:* Current equity holder in private company; *Johnson & Johnson:* Current equity holder in publicly-traded company. **Hester:** *Janssen Research & Development, LLC:* Current Employment, Current equity holder in publicly-traded company; *Johnson & Johnson Innovative Medicine:* Current Employment; *Johnson and Johnson:* Current holder of *stock options* in a privately-held company. **Paner-Straseviciute:** *Johnson and Johnson Innovative Medicine:* Current Employment. **Walker:** *Sierra Medical Affairs LLC, Contracted to Janssen:* Current Employment; *Johnson and Johnson:* Current equity holder in publicly-traded company. **Hearty:** *Johnson & Johnson:* Current Employment, Current equity holder in publicly-traded company. **Paulson:** *Ideology:* Speakers Bureau; *GTHX:* Current equity holder in publicly-traded company; *Texas Oncology PA:* Current Employment; *ADCT:* Current equity holder in publicly-traded company; *AMGN:* Current equity holder in publicly-traded company; *APTO:* Current equity holder in publicly-traded company; *ATNM:* Current equity holder in publicly-traded company; *BMY:* Current equity holder in publicly-traded company.

https://doi.org/10.1182/blood-2024-210497