

## **Real-World Patient Profiles, Treatment Patterns, and Outcomes of Teclistamab in a Diverse Population with Multiple Myeloma**

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### **Background/ Purpose**

Bispecific antibodies (BsAb) such as Teclistamab-cqyv hold promise as significant immunotherapies for the treatment of relapsed/refractory multiple myeloma. However, inequities and administration challenges, such as cytokine release syndrome (CRS) and immune effector cell-associated neurotoxicity (ICANS), hinder patient access to therapy. The USC Norris Comprehensive Cancer Center serves as the study's focal point, encompassing a diverse patient population. Gathering data from diverse clinical environments offers valuable insights into the difficulties patients and healthcare providers encounter which will be uncovered through chart review.

### **Methods**

Structured data analysis will assess patient demographics including race/ethnicity, gender, age, preferred language, clinical characteristics, treatment history, distance from the cancer center, and adverse events will be analyzed. Furthermore, unstructured data including patients' treatment response, therapy lines and agents used before Teclistamab-cqyv will be analyzed. This data will be organized into tables detailing demographics, disease traits, treatment regimens, and quality of life impact. Transitions of care will also be assessed by standardization of step-up dosing and real-world dosing frequency.

### **Results**

The study's findings demonstrate the treatment regimen's effectiveness across various patient groups. Despite nearly 35% experiencing CRS, ICANS, or infection, most cases resolved with interventions including steroids and tocilizumab. All patients received antibacterial, antiviral prophylaxis, and intravenous immunoglobulin therapy demonstrating an infection prevention approach. Results show 35% achieved complete response (CR), 23% very good response (VGPR), and 8% partial response (PR). This underscores treatment efficacy in managing adverse events while achieving positive outcomes.

### **Conclusion**

The reported partial response or greater rate of approximately 65% aligns with the outcomes documented in the MAJESTEC clinical trial, underscoring the reliability and consistency of the treatment approach. While acknowledging the limitations of the study, particularly its single-institution basis, the results highlight the potential benefits of further research with larger sample sizes, providing deeper insights into the efficacy and safety of the therapeutic interventions.