



## The 65th ASH Annual Meeting Abstracts

## POSTER ABSTRACTS

## 905.OUTCOMES RESEARCH-LYMPHOID MALIGNANCIES

**Patient Awareness of CAR-T and Bispecific Antibody Treatments for Multiple Myeloma: Real-World Learnings and Disparities**

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**Introduction:** Treatment options for multiple myeloma (MM) are evolving rapidly with recent introduction of BCMA-targeting CAR-T (Ide-cel, Cilta-cel) and bispecific antibody (Bi-Ab; Teclistamab) alternatives. These are complex, logistically demanding therapies, and patient awareness/knowledge can affect treatment decisions. There are traditionally underserved patients in MM, and awareness among them must be investigated to uncover disparities which may impact their access to and choice of novel therapies, contributing to disparate outcome.

**Methods:** The study involved an anonymous 25-question online English language survey covering basic demographics, understanding of available T-cell directed MM treatments (CAR-T, Bi-Ab), and preferences for these agents. MM patients within the Mayo Clinic database and members of International Myeloma Foundation's MM support groups were sent a link to the voluntary survey. The survey was active from March 30 until July 12, 2023. Descriptive statistics were calculated with R language (Bluesky Statistics, V7.40), and categorical variables among outcome demographic groups were compared using Pearson Chi-square test ( $p$ -value  $\leq 0.05$  considered statistically significant). Multiple model logistic regression was used for multivariate analysis amongst statistically significant outcomes.

**Results:** The survey had 2370 respondents with median age 68 years (range: 30-95) and median age at MM diagnosis 62 years (range: 18-88). Time since diagnosis was <5 years in 59.5%. Majority of the respondents (89.4%) were non-Hispanic Whites (NHW). Maximum education categories were high school (10.9%), some college but no degree (18.1%), associate/bachelor (39.7%), and master's/professional (32.3%). Geography and type of residence were reported as: West (24%), Midwest (46.2%), Northeast (3.3%), South (24.8%), outside U.S. (1.7%), and rural (26.7%), urban (21.4%), suburban (51.9%). The goals of MM treatment in order of reported importance were complete remission (66.1%), longer survival (55.3%) and low symptom burden (43.3%). Only 6.5% and 2.6% of respondents had received CAR-T and Bi-Ab, respectively, while 27.9% and 70.5% had never heard of CAR-T and Bi-Ab, respectively. A high proportion of respondents did not understand the risks/benefits of CAR-T (65.5%) or Bi-Ab (90.7%). Given a preference among CAR-T products, 5.4% would prefer Cilta-cel, 1.9% Ide-cel and 92.7% were not sure/no preference. Amongst only those who reported understanding the risks/benefits of CAR-T, the majority (73%) said they would prefer Cilta-cel. The majority (87.5%) were not sure of any differences between the two CAR-T products while some reported different targets (6.3%), response rate (5.9%), response duration (6.2%), side effects (4.9%), and manufacturing time (2.7%). The biggest concern for both CAR-T and Bi-Ab was side effects. Majority (89.4%) were not sure that Teclistamab Bi-Ab targeted BCMA, and nearly 70% felt that CAR-T was superior to Bi-Ab for treating MM. Reported sources of knowledge about MM treatment were healthcare team (82.6%), online resources (43.6%) and other patients/support groups (37.9%). Several demographic characteristics that significantly affected patient's responses to different questions in the survey. Selected questions and respondent categories with statistically significant results in multivariate analysis are shown in Table 1. Generally, higher education, living in northeast U.S., urban or suburban residency, and >5 years since MM diagnosis were associated with better awareness/understanding of CAR-T and Bi-Ab. Respondents with >70-year age were less likely to be aware of these agents or understand their risks/benefits. Race-ethnicity had no statistically significant associations in this cohort of predominantly NHW.

**Conclusions:** This large cross-sectional study identifies lack of adequate awareness regarding CAR-T and Bi-Ab and provides a glimpse of current understanding of these complex therapies. There are disparate groups including rural, less educated, elderly and those with recent diagnosis of MM who have significantly lesser awareness. Some better-informed respondents

had preferences among these treatments. Targeted awareness campaigns should be developed so that knowledge gaps can be bridged and patients across all sociodemographic groups are better equipped to take informed decisions about MM treatment.

**Disclosures Ailawadhi:** Beigene, BMS, Cellectar, GSK, Janssen, Pfizer, Regeneron, Sanofi, Takeda: Consultancy; AbbVie, Amgen, Ascentage, BMS, Cellectar, GSK, Janssen, Pharmacylics, Sanofi: Research Funding.

TABLE 1. Selected questions from the survey* (p value):		
<b>Question: Have you heard of CAR-T therapy for MM? (Yes)</b>		
Education level:	Associate degree	<0.01
	Master's degree	<0.01
Geographical Location:	Northeast	0.04
Type of residency:	Suburban	<0.01
<b>Question: Do you feel you understand the risks and benefits of CAR-T therapy for MM? (Yes)</b>		
Time since MM diagnosis:	>5 years	<0.01
Education level:	Associate degree	0.01
	Master's degree	<0.01
Type of residency:	Suburban	<0.01
	Urban	<0.01
<b>Question: Have you heard of Bi-Ab therapy for MM? (Yes)</b>		
Time since MM diagnosis:	>5 years	<0.01
Education level:	Associate degree	<0.01
	Master's degree	<0.01
Geographical location:	Northeast	<0.01
Type of residency:	Suburban	<0.01
	Urban	0.01
<b>Question: Do you feel you understand the risks and benefits of Bi-Ab therapy for MM? (Yes)</b>		
Time since MM diagnosis:	>5 years	<0.01
Education level:	Master's degree	<0.01
Type of residency:	Suburban	<0.01

\*Selected variables which had statistically significant results for outcome demographic groups

Figure 1

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