PA-465. Factors Influencing CAR T-Cell vs. Bispecific Antibody Preferences in Relapsed/Refractory Multiple Myeloma

Authors: Magaly Valeria Escobedo Cruz, MD[1*], Patricia Alejandra Flores Pérez, MD[1], Felipe Flores Quiroz, MD[1], Jorge Arturo Hurtado Martinez, MD, MHSc[1], Andrea Isabel Robles Espinoza, MD, MBA[1], Jennifer M. Ahlstrom, BS[1], Laura Ladeluca, PhD[2], Julie Strain, MMH[2], Rachel M. Jensen, BS[1*], Cynthia Chmielewski[1], Robert Z. Orlowski, MD, PhD[3], Sagar Lonial, MD, FACP[4], Rafael Fonseca, MD[5], Ola Landgren, MD, PhD[6], Saad Z. Usmani, MD, MBA, FACP, FASCO[7], Jay Hydren, PhD[1*].

Organizations: [1]HealthTree Foundation, Lehi, UT; [2]GlaxoSmithKline plc, Durham, NC; [3]The University of Texas MD Anderson Cancer Center, Houston, TX; [4]Winship Cancer Institute Of Emory University, Atlanta,GA; [5]Mayo Clinic, Scottsdale, AZ; [6]University of Miami Sylvester Comprehensive Cancer Center, Miami, FL; [7]Memorial Sloan Kettering Cancer Center, New York, NY.

BACKGROUND

Treating relapsed or refractory multiple myeloma (RRMM) is increasingly complex with the rise of Chimeric Antigen Receptor T-cell Therapy (CAR T-cell) and Bispecific Antibodies (BsAbs) therapies, each offering distinct benefits and burdens. Understanding patient perspectives is essential to guide personalized treatment. **This study assessed patient preferences and factors influencing the choice between CAR T-cell and BsAbs.**

METHODOLOGY

A retrospective survey conducted via **HealthTree Cure Hub** (Feb 14, 2023 - Jan 1, 2024) gathered **data on patient-reported treatment preferences, relapse experiences, and influential decision-making factors rated from 1 (Not influential) to 5 (Extremely influential).** Responses were analyzed based on drug class preference and relapse timing (initial and most recent treatment changes). Data were anonymized and analyzed using descriptive statistics.

CONCLUSION

Our study reveals that perceived efficacy is the most influential factor in initial treatment decisions due to its direct impact on expected outcomes and patient satisfaction. Financial considerations also play a crucial role, particularly for long-term adherence and quality of life, with importance varying based on individual patient circumstances. Patients who prefer CAR T-cell therapy prioritize treatment efficacy, high-risk status, and response duration to previous treatments, focusing on effectiveness and personalized care. In contrast, patients favoring BsAbs are less accepting of factors such as hospitalization, relocation, and caregiving burdens.

While they initially weigh prior response to therapies and financial factors, over time their influence diminishes. This shift, prioritizing autonomy and stability within the chronicity of RRMM, may reflect the need for an adaptive reevaluation of what constitutes a tolerable quality of life after multiple lines of therapies

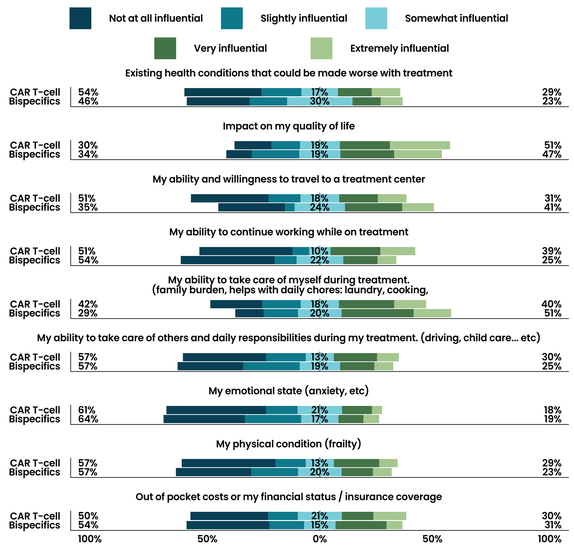
ACKNOWLEDGEMENT

Our deepest gratitude to the patients and caregivers who share their data and experiences through the HealthTree Cure Hub®. Your contributions make this research possible.

RESULTS

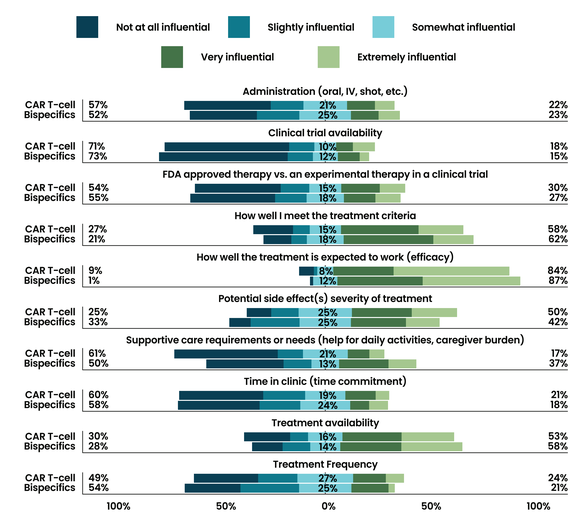
Total Participants: 784 Respondents, 163 experienced RRMM

CAR-T BISPECIFICS PATIENT FACTORS



For your change in therapy (relapse), please indicate to what degree each patient factor (functional/quality of life) went into your decision. (Not including dosage changes).

CAR-T BISPECIFICS TREATMENT-RELATED FACTORS



For your change in therapy (relapse), please indicate to what degree each treatment-related factor went into your treatment decision, not including dosage change.

DICHOTOMOUS SPLIT-PATIENTS WHO RANK CAR T-CELL OR BISPECIFICS AS THEIR FIRST PREFERENCE	FIRST PREFERENCE RANK
Responses	201
Receive a possible effective one-time treatment with close medical monitoring for 4-weeks after treatment to manage and/or monitor the risk of acute immune systemcomplications from a cytokine release syndrome, plus the potential short term orserious long term neurological side effects for a small percentage of patients andgreater risk of infections (e.g. CAR T-Cell).	132 (66%)
Receive a possible effective ongoing myeloma therapy with more up-front medicalmonitoring and potential hospitalization for the first 1-4 doses and greater risk ofinfections. Side effects for one treatment in this class (but not most) could also includecosmetic or non-life threatening side effects (e.g. hair loss, skin peeling, nail disorder)which may interfere with your quality of life, while you are on the treatment. (e.g.bispecifics).	69 (34%)
Note: This represents patients ranking the drug options as first, n (%). Percentage calculated by column totals.	

For more information on clinical research collaboration, please contact research@healthtree.org

Disclosures: Fonseca: Consulting: AbbVie, Adaptive, Amgen, Apple, BMS/Celgene, GSK, Janssen, Karyopharm, Pfizer, RA Capital, Regeneron, Sanofi. Scientific Advisory Board: Caris Life Sciences. Board of Directors: Antengene. Patent for FISH in MM – ~$2000/year Believe in stem cell transplant. Usmani: Research funding: Abbvie, Amgen, Array Biopharma, BMS, Celgene, GSK, Janssen, Merck, Pharmacyclics, Sanofi, Seattle Genetics, SkylineDX, Takeda. Consulting: Abbvie, Amgen, BMS, Celgene, EdoPharma, Genentech, Gilead, GSK, Gracell Therapeutics, Janssen, Oncopeptides, Sanofi, Seattle Genetics, SecuraBio, SkylineDX, Takeda, TeneoBio. Ladeluca and Strain: Employee and Stockholder of GlaxoSmithKline plc. Hydren: Research funding from Adaptive Biotechnologies, BioLinRx, Gamida-Cell, Sanofi, GlaxoSmithKline, Regeneron, Pfizer, Johnson and Johnson Innovative Medicine and Takeda Oncology. Ahlstrom: Patient advocacy committee: Pfizer, BMS, Janssen, Takeda Oncology, and Sanofi.

Scan to learn more about how HealthTree can accelerate your research