CAR T-Cell Therapy Shows Promising Phase II Trial Results in Multiple Myeloma

In updated Phase II trial results, anito-cel demonstrated an overall response rate of 97% and a complete response rate of 68%.

December 7, 2025 By MD Anderson Cancer Center

- Anito-cel is an experimental CAR T-cell therapy for relapsed/refractory multiple myeloma patients.
- In updated Phase II trial results, anito-cel demonstrated an overall response rate of 97% and a complete response rate of 68%.
- Several therapies are available in this space. Anito-cel offers robust efficacy together with a reassuringly favorable safety profile, making it an important addition to current CAR-T options.
- A Phase III trial is already underway to evaluate anito-cel versus the current standard-of-care therapy

ORLANDO — The chimeric antigen receptor (CAR) T cell therapy anitocabtagene autoleucel (anito-cel) continued to show strong results in treating relapsed/refractory multiple myeloma, according to new trial data from researchers at The University of Texas MD Anderson Cancer Center.

The findings were presented today [December 6] by Krina Patel, MD, associate professor of Lymphoma & Myeloma at the 67th American Society of Hematology (ASH) Annual Meeting and Exposition (Abstract 256). All ASH content from MD Anderson can be found at MDAnderson.org/ASH.

“These data are really encouraging for these patients because not only does anito-cel look to be highly effective, but the safety profile is very promising compared to the other therapies currently approved in this setting,” Patel said. “The durability of response also continues to look strong, even in this heavily pretreated population.”

What are the key updates from this trial evaluating anito-cel in multiple myeloma?

This presentation provides updates to previously shared data on the Phase II iMMagine-1 trial with

additional follow-up time.

In the updated data set of 117 patients with refractory multiple myeloma and a median of three prior lines of therapy, the overall response rate was 97% and the complete response rate was 68%. The progression-free survival rates at 12 and 18 months were 79% and 66%, respectively, with overall survival rates of 95% and 90%, respectively, at the same time periods.

No delayed or unusual neurological complications were observed, and most side effects were temporary and manageable. Most patients experienced grade three or higher drops in blood counts (66% neutropenia, 24% anemia, 24% thrombocytopenia). The majority of patients experienced low-grade cytokine release syndrome, which was mild and resolved within a few days, with only one patient having a severe case. Nine patients experienced any-grade neurotoxicities, with eight of these being grade one or two.

How does anito-cel differ from other CAR T cell therapies?

Most CAR T cell therapies use antibody fragments derived from naturally created cells to recognize their target. Anito-cel instead uses a novel synthetic protein to target B-cell maturation antigen found on multiple myeloma cells. This has the advantage of being much smaller and simpler than antibody fragments, and therefore it is easier to engineer into T cells.

It is anticipated that this process could result in a CAR T cell therapy that is not only easier to produce but also may limit the neurological or gastrointestinal side effects seen with other CAR T cell therapy options.

This trial was supported by Arcellx. A full list of collaborating authors and their disclosures can be found with the abstract.

This news release was published by the the University of Texas MD Anderson Cancer Center on December 6, 2025.

Click here for more reports from ASH 2025.
