

Assessment Agencies

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Background

- The advancement of cellular therapies, such as chimeric antigen receptor (CAR) cell therapies, are a pivotal stride in the treatment of various hematologic conditions, as evidenced by the important efficacy observed in clinical studies.
- The substantial cost associated with cellular therapies poses a challenge to their integration into healthcare systems and their economic sustainability.

Objective

To identify and characterize cost-effectiveness evaluations for incorporating CAR-T cell therapies in different countries.

Methods

Cost-effectiveness evaluations obtained from health technology assessment agencies (July/2023):

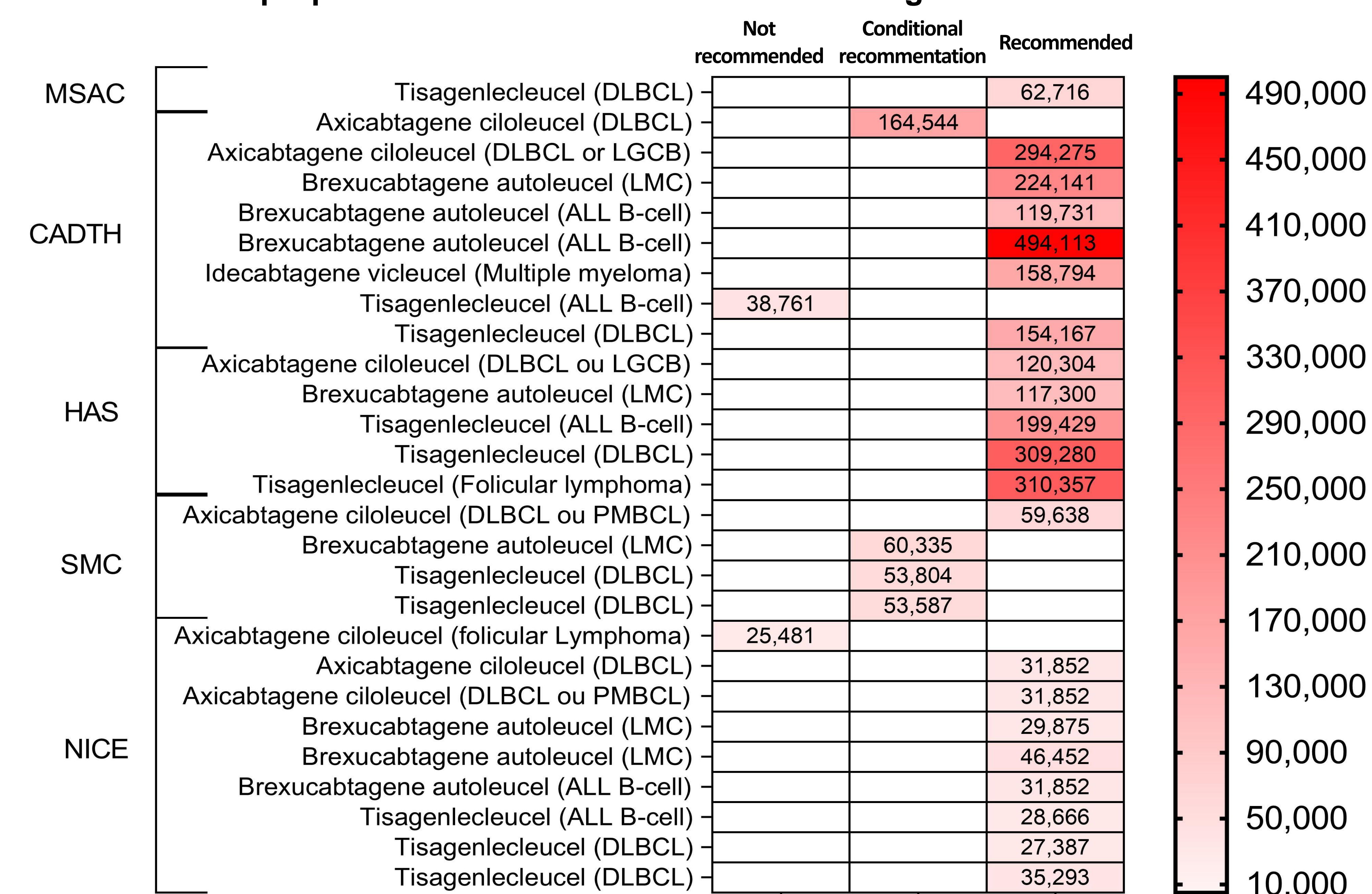
- Australia (MSAC); Canada (CADTH); France (HAS); Scotland (SMC); United Kingdom (NICE)

The protocol for this review is registered and available online (doi: 10.17605/OSF.IO/95ACK).

Results

- Twenty-nine evaluations were identified for incorporating five CAR-T therapies: axicabtagene ciloleucel (MSAC, CADTH, HAS, SMC, NICE), brexucabtagene autoleucel (MSAC, HAS, CADTH, SMC, NICE), ciltacabtagene autoleucel (MSAC), idecabtagene vicleucel (CADTH), tisagenlecleucel (MSAC, CADTH, HAS, SMC, NICE).
- These therapies were assessed for eight types of lymphomas or leukemias, most frequent conditions:
 - Diffuse large B-cell lymphoma (14 evaluations);
 - Acute lymphoblastic leukemia (7 evaluations);
- Common comparators: rescue chemotherapy and allogeneic hematopoietic stem cell transplantation.
- Twenty-three (79%) evaluations received favorable incorporation recommendations.

Figure 1. Heat map indicating the ICER value of CAR-T cell therapy evaluated in reimbursement proposals submitted to different national agencies.



Standardized value in US dollars (08/2023): 1 EUR = 1,06 USD; 1 CAD = 0,74 USD; 1 AUD = 0,64 USD; 1 GBP = 1,23 USD

Conclusions

This study emphasized the growing international prominence of CAR-T cell therapies. Despite the high ICER associated with these therapies, 79% of the analyses favored incorporation. Implementing CAR-T therapies presents challenges, especially their high cost, prompting discussions on financing mechanisms for integration into healthcare systems.

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