HEMATOL TRANSFUS CELL THER. 2021;xxx(xx):1–2

HEMATOLOGY, TRANSFUSION AND CELL THERAPY

www.htct.com.br

Editorial

The Brazilian Association of Hematology, Hemotherapy and Cellular Therapy seeks the implementation of, and access to, the CAR-T cell treatment in Brazil

Dante Mário Langhi [a,b], *Angelo Maiolino* [a,c], *Carlos Sérgio Chiattone* [a,d], *Carmino Antônio de Souza* [a,e,*], *Dimas Tadeu Covas* [a,f], *Fernando Ferreira Costa* [a,e], *Renato L. Guerino-Cunha* [a,g], *Ricardo Pasquini* [a,h]

[a] *Associação Brasileira de Hematologia, Hemoterapia e Terapia Celular (ABHH), São Paulo, SP, Brazil*
[b] *Universidade Federal de São Paulo (UNIFESP), São Paulo, SP, Brazil*
[c] *Universidade Federal do Rio de Janeiro (UFRJ), Rio de Janeiro, RJ, Brazil*
[d] *Faculdade de Ciências Médicas da Santa Casa de São Paulo, São Paulo, SP, Brazil*
[e] *Universidade Estadual de Campinas (UNICAMP), São Paulo, SP, Brazil*
[f] *Instituto Butantan, São Paulo, SP, Brazil*
[g] *Universidade de São Paulo (USP), Ribeirão Preto, SP, Brazil*
[h] *Universidade Federal do Paraná (UFPR), Curitiba, PR, Brazil*

ARTICLE INFO

Article history:
Received 29 June 2021
Accepted 5 July 2021
Available online xxx

We are currently on the frontier of knowledge about the introduction of immunological treatments which make use of T-cell derivations with chimeric antigen receptors (Car-T Cells). We can compare this moment with that which was experienced in the 70s and 80s with the introduction and diffusion of bone marrow transplants, currently consolidated and accessible in Brazil in the private healthcare system, as well as in the public one. This innovative therapeutic modality has demonstrated extraordinary potential in the treatment of hematologic neoplasias, especially in that of acute lymphocytic leukemia and B-Cell lymphomas of the diffuse large B-cell lymphoma (DLCBL) type and mantle cell lymphoma (MCL). However, this therapeutic potential goes much further, both in the scope of Hematology, in the experiments in Multiple Myeloma, and in solid tumors, for which the possibilities are even more ample. The technical principles involved in this therapy are comprehensible to the professionals involved, but their operationalization, as well as the accessibility and economic sustainability are yet very restricted. In a very generalized manner of speaking, the Car-T Cells are spawned from the collection and selection of T-cell derivations from the patient by means of apheresis. These T-cells are forwarded to the laboratories for processing and genetic manipulation, in which they are reprogrammed to reach the target tumor cells of this very patient. Subsequently, these

* *Corresponding author at:* R. Carlos Chagas, 480, Cidade Universitária, CEP: 13083 878 Campinas, SP, Brazil.
E-mail address: carmino@unicamp.br (C.A. de Souza).

https://doi.org/10.1016/j.htct.2021.07.001

Please cite this article as: D.M. Langhi et al., The Brazilian Association of Hematology, Hemotherapy and Cellular Therapy seeks the implementation of, and access to, the CAR-T cell treatment in Brazil, Hematology, Transfusion and Cell Therapy (2021), https://doi.org/10.1016/j.htct.2021.07.001

cells are expanded and returned to their origin to be reinfused in the patient, clinically and immunologically prepared to receive this procedure.[1,2] All these steps, logistics, techniques and structure are complex and expensive.

The Brazilian Association of Hematology, Hemotherapy and Cellular Therapy (ABHH), upon recognizing this issue as fundamental to the development of diverse medical areas, especially oncohematology, hemotherapy, cellular therapy, hematopoietic progenitor cell transplant, clinical oncology and pediatric oncohematology, decided to develop a project to discuss and propose short-term solutions for the introduction of treatment using Car-T Cells in Brazil. In May 2021, the ABHH held the first event with the objective of establishing strategies for a future consensus on the use of genetically modified cells. Over three consecutive days, Brazilian specialists who work at university institutions, large reference hospitals, the ANVISA and the Ministry of Health, as well as Brazilian researchers who work in this field in the USA and in Europe, discussed aspects connected with the manipulation, regulation, access and, finally, the most habitual and consolidated indications for this therapy. Legal and ethical aspects were also presented and discussed.

The ABHH established an agenda for future gatherings and created groups of specialists who will draw up documents with pertinent strategic, scientific and regulatory content, etc., to support and sustain policy decisions as to this issue. In next July, fundamental and critical questions concerning the access to, and regulation of, these genetically modified cells will be discussed. Other meetings will follow, enabling us to publish in December a special issue of the journal "Hematology, Transfusion and Cell Therapy", an official organ of the ABHH.

This strategy aims at making our decisions the most democratic and technically sustainable, with the greatest probability of success and most ample access. Among the ABHH guidelines are those that state that decisions and suggestions should attend to the highest possible number of patients within the public (SUS) and private healthcare systems in Brazil.

REFERENCES

1. June CH, Sadelain M. Chimeric antigen receptor therapy (frontiers in medicine – review article). N Engl J Med. 2018;379:64–73. https://doi.org/10.1056/NEJMra1706169.
2. Levine BL, Miskin J, Wonnacott k, Keir C. Global manufacturing of CAR T cell therapy. Molecular Therapy. March 2017;4:92–101.

Please cite this article as: D.M. Langhi et al., The Brazilian Association of Hematology, Hemotherapy and Cellular Therapy seeks the implementation of, and access to, the CAR-T cell treatment in Brazil, Hematology, Transfusion and Cell Therapy (2021), https://doi.org/10.1016/j.htct.2021.07.001