



CAR T Glossary of Terms

Chimeric Antigen Receptor T cell (CAR T) Therapy

Chimeric antigen receptor (CAR) T-cell therapy is a kind of immunotherapy – it involves harnessing the power of a patient’s own immune system by engineering T cells to recognize and attack cancer cells.¹

Immunotherapy A form of treatment that uses an individual’s own immune system to fight disease. In cancer, this is often done by stimulating the immune system to attack cancer cells or by supplementing the immune system with components that fight cancer cells.²

Gene therapy A process that uses genes to treat diseases.³

Engineered cell therapy Treatment using genetically modified T cells either through altering the specificity of the T cell receptor or through introducing antibody-like recognition in chimeric antigen receptors (CARs).⁴

Transplant ineligible Describes individuals with NHL who are not appropriate candidates for autologous stem cell transplant (ASCT) under standard bone marrow transplant guidelines, including patients with severe coinciding medical or psychiatric illness, active central nervous system involvement or HIV seropositivity.⁵

Infusion The administration of fluids through an individual’s vein and into the blood stream. In CAR T therapy, once a person’s T cells have been identified and engineered to produce CARs, the engineered cells are reintroduced to the individual through infusion.⁶

Vein to vein The timeline in CAR T therapy, from when an individual’s blood is extracted to when it is reintroduced.¹

Leukapheresis The process of removing an individual’s blood to isolate and collect white blood cells. This is the first step in CAR T therapy.⁷

Low dose conditioning chemotherapy A treatment intended to prepare a patient for CAR T therapy. This regimen is intended to enhance activity of CAR T cells once infused in the patient.⁸

Endpoints

Complete response (CR) Occurs when all signs of cancer disappear after cancer treatment.⁹

Duration of response (DOR) Usually defined as the length of time from the initial response to treatment until documented disease progression.¹⁰

Durable partial response A decrease in the extent of cancer in response to treatment over a predefined period of time.¹¹

Ongoing response A continued response as a result of treatment.¹²

Objective response rate (ORR) A measurable reduction in cancer or tumor burden by pre-specified criteria.^{13,14}

Progression-free survival (PFS) The length of time during and after a treatment that a patient lives without the disease getting worse.¹⁵

Overall survival (OS) The length of time from either diagnosis or the start of treatment that patients are still alive.¹⁶

Side effects/AEs

Cytokine release syndrome (CRS) A condition that occurs when, as T cells destroy cancer cells, proteins called cytokines are released into the body. High levels of cytokines can result in symptoms that range from mild to life threatening and may consist of fever, fast heart rate, low blood pressure, and low blood oxygen.^{17,18}

Neurologic events Complications associated with the nervous system that may occur independently or in the presence of CRS.¹⁹

Cerebral edema Life threatening condition that includes the swelling of an individual's brain as a result of an inflammatory reaction.²⁰

Anemia When an individual's number of red blood cells is below normal.²¹

Neutropenia When an individual's neutrophils, which are a type of white blood cell that help fight infection, are below normal and puts them at risk of infection.²²

Febrile neutropenia Neutropenia marked by a fever.²³

Leukopenia Occurs when an individual's number of leukocytes, a type of white blood cell, are lower than normal. Also called lymphocytopenia.²⁴

Thrombocytopenia Occurs when an individual has too few platelets in the blood, which can cause easy bruising or excessive bleeding from wounds, mucous membranes or other tissues.²⁵

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