Kymriah

Generic Name: tisagenlecleucel

Drug Class: Immunotherapy Medications

Company: Novartis

Approval Status: Approved

Generic Version Available: No

Experimental Code: CTL019

Drug Indication

Kymriah is a CAR-T therapy approved for relapsed or refractory B-cell acute lymphoblastic leukemia in children and young adults up to age 25 and for relapsed or refractory diffuse large B-cell lymphoma in adults.

General Info



Kymriah is a chimeric antigen receptor T-cell, or CAR-T, therapy. A patient's T cells are collected, genetically reprogrammed by inserting an artificial receptor, multiplied in a lab and reinfused into the same individual. These synthetic receptors help the engineered T cells recognize and attack cancer cells. Specifically, Kymriah targets the CD19 protein on B cells that grow out of control in leukemia and lymphoma.

The ELIANA trial showed a response rate of 83% for children with acute lymphoblastic leukemia, and some have been cancer-free for years. The JULIET trial showed a response rate of 50% for adults with diffuse large B-cell lymphoma. It was first approved for children in 2017 and adults in 2018.

Dosage

Dosing Info:

Kymriah involves a single infusion of genetically modified T cells. The turnaround time from cell collection to reinfusion of the altered cells is about three weeks. Chemotherapy is often given before the CAR-T infusion to kill cancerous immune cells and make room for the new ones.

Side Effects

CAR-T therapy can cause potentially severe immune reactions. Unleashing genetically modified T cells can lead to cytokine release syndrome (CRS), in which the new cells trigger excessive immune activation that can lead to organ failure and neurological symptoms. Severe side effects may include fever, chills, difficulty breathing, muscle or joint pain, low blood pressure and brain swelling. Symptoms of brain inflammation may include confusion, dizziness and memory problems. The immune reaction can lead to organ failure and death, but it can be managed if caught early. Treatment can also cause depletion of B cells and other white blood cells, which can lead to infections.

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For More Info: https://www.us.kymriah.com

Co-Pay Program Info:
https://www.us.kymriah.com/acute-lymphoblastic-leukemia-children/patient-support/support-resources/

Patient Assistance Program Info:
https://www.us.kymriah.com/acute-lymphoblastic-leukemia-children/patient-support/support-resources/

Last Reviewed: September 18, 2018

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