Yescarta

(axicabtagene ciloleucel)

NEW PRODUCT SLIDESHOW

MPR

Introduction

- **Brand name:** Yescarta
- **Generic name:** Axicabtagene ciloleucel
- **Pharmacological class:** CD19-directed genetically modified autologous T cell immunotherapy
- **Strength and Formulation:** may contain up to $2x10^8$ CAR-positive viable T cells); per dose; susp for IV infusion; contains dimethyl sulfoxide (DMSO) and albumin (human)
- **Manufacturer:** Kite Pharma, Inc.
- **How supplied:** Infusion bag (approx. 68mL)—1
- **Legal Classification:** Rx

Indications

- Treatment of adults with **relapsed or refractory large B-cell lymphoma** after 2 or more lines of systemic therapy, including:
  - Diffuse large B-cell lymphoma (DLBCL) not otherwise specified
  - Primary mediastinal large B-cell lymphoma
  - High grade B-cell lymphoma
  - DLBCL arising from follicular lymphoma

Limitations of Use

- **Not** for treating primary CNS lymphoma

Dosage & Administration

- For autologous and IV use only; confirm patient identity prior to infusion
- Give lymphodepleting chemotherapy (cyclophosphamide 500mg/m^2 IV + fludarabine 30mg/m^2 IV on the 5th, 4th, and 3rd day prior to Yescarta infusion

Dosage & Administration

- **Premedicate** with APAP and diphenhydramine approx. 60mins prior to Yescarta infusion; avoid prophylactic corticosteroids
- Infuse contents of bag within 30mins
- **Target dose:** $2x10^6$ CAR-positive viable T cells/kg; max $2x10^8$ CAR-positive viable T cells

Considerations for Special Populations

- **Pediatric:** Not established
- **Pregnancy:** Not recommended; verify status prior to treatment start
- **Nursing mothers:** Consider mother's clinical need with adverse effects on breastfed infant
- **Elderly:** Insufficient number of patients studied

Warnings/Precautions

- Increased risk of **cytokine release syndrome (CRS)**; do not give to patients with active infection and/or inflammatory disorders
- Have tocilizumab readily available
- Monitor at least daily for 7 days at healthcare facility following infusion for signs/symptoms of CRS and neurologic toxicities

Warnings/Precautions

- Continue to monitor for CRS for 4 weeks after infusion; at 1st sign, institute treatment with supportive care, tocilizumab and/or corticosteroids as indicated (see full labeling)
- Monitor for **neurologic toxicities** for 4 weeks after infusion and treat promptly (see full labeling)

Warnings/Precautions

- Monitor for infection, febrile neutropenia; evaluate, manage and treat appropriately
- Screen for HBV, HCV, and HIV prior to cell collection for manufacturing
- Monitor blood counts, immunoglobulin levels after treatment

Interactions

- Concomitant **live virus vaccines**: not recommended for at least 6 weeks prior to lymphodepleting chemotherapy, during Yescarta treatment, and until immune recovery

Adverse Reactions

- CRS
- Fever
- Hypotension
- Encephalopathy
- Tachycardia
- Fatigue
- Headache
- Decreased appetite
- Chills
- Diarrhea
- Febrile neutropenia
- Infections
- Nausea
- Hypoxia
- Tremor
- Cough
- Vomiting
- Dizziness
- Constipation
- Arrhythmias
- Hypersensitivity
- HBV reactivation
- Others

Mechanism of Action

- Yescarta binds to CD19-expressing cancer and normal B cells, thereby activating downstream signaling cascades which lead to T cell activation, proliferation, acquisition of effector functions and secretion of inflammatory cytokines and chemokines, eventually leading to cell death

Clinical Studies

- The efficacy of Yescarta was evaluated in a single-arm, open-label, multicenter trial involving 101 adults with relapsed or refractory aggressive B-cell non-Hodgkin lymphoma
- Patients received a single IV infusion of Yescarta following lymphodepleting chemotherapy

Clinical Studies

- The **primary efficacy endpoint** was established based on the rate of complete remission (CR) and duration of response (DOR), as determined by an independent review committee

Clinical Studies

- Patients who were treated with Yescarta achieved a CR rate of **51%** (95% CI: 41, 62)
- The **median time to response** was 0.9 months (range: 0.8 to 6.2 months)
- Response durations were longer in patients who achieved CR, as compared to patients with a best response of partial remission (PR)

Clinical Studies

- Additionally, **median time to improvement** in patients who achieved CR was 2.1 months (range: 1.6 to 5.3 months)

- For more clinical trial data, see full labeling

New Product Monograph

- For more information view the product monograph available at:

  https://www.empr.com/yescarta/drug/34786/