STARTING YOUR PATIENTS ON

KYMRIAH®
(tisagenlecleucel) Suspension for IV infusion

The first FDA-approved CAR-T cell therapy now has 2 indications

- NOW APPROVED in adults with relapsed/refractory (r/r) large B-cell lymphoma after two or more lines of systemic therapy including diffuse large B-cell lymphoma (DLBCL) not otherwise specified (NOS), high-grade B-cell lymphoma, and DLBCL arising from follicular lymphoma

  Limitation of Use: KYMRIAH is not indicated for treatment of patients with primary central nervous system lymphoma.
- KYMRIAH® (tisagenlecleucel) is also THE ONLY CAR-T cell therapy approved for the treatment of patients up to 25 years of age with B-cell precursor acute lymphoblastic leukemia (ALL) that is refractory or in second or later relapse

This guide will walk you through how to start your appropriate patients on KYMRIAH so that you can begin coordinating care with a KYMRIAH Treatment Center.

IMPORTANT SAFETY INFORMATION for KYMRIAH® (tisagenlecleucel)

WARNING: CYTOKINE RELEASE SYNDROME AND NEUROLOGICAL TOXICITIES

- **Cytokine Release Syndrome (CRS), including fatal or life-threatening reactions, occurred in patients receiving KYMRIAH. Do not administer KYMRIAH to patients with active infection or inflammatory disorders. Treat severe or life-threatening CRS with tocilizumab, or tocilizumab and corticosteroids**
- **Neurological toxicities, which may be severe or life-threatening, can occur following treatment with KYMRIAH, including concurrently with CRS. Monitor for neurological events after treatment with KYMRIAH. Provide supportive care as needed**
- **KYMRIAH is available only through a restricted program under a Risk Evaluation and Mitigation Strategy (REMS) called the KYMRIAH REMS**

Please see additional Important Safety Information throughout and click here for full Prescribing Information for KYMRIAH, including Boxed WARNING, and Medication Guide.

1 THINK KYMRIAH FOR APPROPRIATE PATIENTS WITH R/R DISEASE

KYMRIAH® (tisagenlecleucel) is indicated for the treatment of:

Adult patients with r/r DLBCL (NOS, high-grade B-cell lymphoma, or tFL) who have received 2 or more systemic therapies

Consider KYMRIAH for adults with r/r DLBCL with any of the following clinical characteristics:

- Have not gone into remission (refractory after second line of therapy)
- Have relapsed (after second line of chemotherapy)
- Have relapsed following autologous stem cell transplant (SCT)
- Have challenges with stem cell collection after salvage chemotherapy
- Are ineligible or not a candidate for autologous SCT owing to inability to achieve complete remission (CR) or are unlikely to achieve CR after salvage therapy

Patients up to 25 years of age with B-cell precursor ALL that is refractory or in second or later relapse

Consider KYMRIAH for pediatric and young adult patients with any of the following clinical characteristics:

- Have not gone into remission following frontline treatment (primary refractory)
- Have relapsed and cannot achieve remission (chemorefractory)
- Have had second or subsequent relapse following CR or SCT

With KYMRIAH:

- Patients do not need to be in complete remission to receive treatment
- No donor is required

tFL, transformed follicular lymphoma.

2 IDENTIFY A KYMRIAH TREATMENT CENTER

KYMRIAH therapy is available at select treatment centers

Treatment with KYMRIAH involves coordination of care with a KYMRIAH Treatment Center. Call **KYMRIAH CARES™** or visit **KYMRIAH-hcp.com** for more information about KYMRIAH Treatment Centers, the ordering process, and product information.

Call or visit

KYMRIAH CARES®

1-844-4KYMRIAH
(1-844-459-6742)

KYMRIAH-hcp.com

If you are considering a patient for KYMRIAH, contact a treatment center right away to discuss eligibility, current treatments, and next steps, as ongoing chemotherapy can lead to T cell depletion,[1] which may affect the quality of the final cell product.

IMPORTANT SAFETY INFORMATION (continued)

Warnings and Precautions

Cytokine Release Syndrome: CRS, including fatal or life-threatening reactions, occurred following treatment with KYMRIAH. CRS occurred in 54 (79%) of the 68 patients with r/r ALL and 78 (74%) of the 106 patients with r/r DLBCL receiving KYMRIAH, including ≥ grade 3 (Penn Grading System) in 49% of patients with r/r ALL and in 23% of patients with r/r DLBCL. The median time to onset was 3 days (range: 1-51), and in only 2 patients was onset after Day 10. The median time to resolution was 8 days (range: 1-36).

Of the 54 patients with r/r ALL who had CRS, 27 (50%) received tocilizumab; 7 (13%) received 2 doses of tocilizumab, 3 (6%) received 3 doses of tocilizumab and 14 (26%) received addition of corticosteroids (eg, methylprednisolone). Of the 78 patients with r/r DLBCL who had CRS, 16 (21%) received systemic tocilizumab or corticosteroids. Six (8%) received a single dose of tocilizumab, 10 (13%) received 2 doses of tocilizumab, and 10 (13%) received corticosteroids in addition to tocilizumab.

Please see additional Important Safety Information throughout and click here for full Prescribing Information for KYMRIAH, including Boxed WARNING, and Medication Guide.

Cytokine Release Syndrome (continued)**:** Two patients with r/r DLBCL received corticosteroids for CRS without concomitant tocilizumab, and 2 patients received corticosteroids for persistent neurotoxicity after resolution of CRS.

Five deaths occurred within 30 days of KYMRIAH infusion. One patient with r/r ALL died with CRS and progressive leukemia, and 1 patient had resolving CRS with abdominal compartment syndrome, coagulopathy, and renal failure when an intracranial hemorrhage occurred. Of the 3 patients with r/r DLBCL who died within 30 days of infusion, all had history of CRS in the setting of stable to progressive underlying disease, 1 of whom developed bowel necrosis. Among patients with CRS, key manifestations included fever (92% r/r ALL and r/r DLBCL), hypotension (67% r/r ALL; 47% r/r DLBCL), hypoxia (20% r/r ALL; 35% r/r DLBCL), and tachycardia (30% r/r ALL; 14% r/r DLBCL). CRS may be associated with hepatic, renal, and cardiac dysfunction, and coagulopathy.

KYMRIAH® (tisagenlecleucel) Suspension for IV infusion

3 CONTINUE COMMUNICATION WITH THE TREATMENT CENTER

Treatment with KYMRIAH® (tisagenlecleucel) involves coordination of care with a KYMRIAH Treatment Center

KYMRIAH is not just a hand-off to another medical center. It is a dynamic treatment process that involves a collaborative partnership between the primary hematologist/oncologist and treatment center. After it is determined that your patient is eligible for and prescribed KYMRIAH, you and the treatment center will both contribute to your patient's care, so ongoing communication is key.

Follow-up will take place with the patient's primary hematologist/oncologist and the KYMRIAH Treatment Center for long-term monitoring

- Patients will be offered enrollment into the KYMRIAH Registry, which will monitor safety for up to 15 years. Routine long-term monitoring is required for potential secondary malignancies and other potential long-term adverse events
- Patients may need to receive immunoglobulin replacement for an indefinite amount of time following treatment with KYMRIAH. Advise patients to tell their physicians about their treatment with KYMRIAH before receiving a live virus vaccine[2]

Please see the full Prescribing Information for additional details of monitoring of patients after infusion.

The KYMRIAH Treatment Process

Patient identification

Use the criteria on the prior pages and speak with a KYMRIAH Treatment Center to help identify appropriate patients with r/r disease for KYMRIAH.

Collection

Leukapheresis, when a patient's own T cells are collected from their blood, occurs over 3 to 6 hours. Within 24 hours, the leukapheresis material is cryopreserved. Cryopreservation allows for convenient scheduling of leukapheresis at a time that is in the best interest of the patient.[2,3]

Manufacturing

The patient's cryopreserved cells are shipped via specialized courier to the Novartis FDA-approved manufacturing facility, where the patients' cells are genetically reprogrammed into KYMRIAH CAR-T cells.

Lymphodepleting chemotherapy

Over 4 days, the patient will receive low-dose lymphodepleting chemotherapy. This prepares the body for the incoming KYMRIAH CAR-T cells, and may help promote their proliferation.[2,4]

Infusion

KYMRIAH can be administered in either an inpatient or hospital outpatient setting at the treating physician's discretion.

Short-term monitoring

The patient should stay within proximity of their KYMRIAH Treatment Center for at least 4 weeks after KYMRIAH infusion to monitor for, and treat, potential side effects.[2]

Long-term monitoring

Routine long-term monitoring is recommended. Patients should be informed about, and encouraged to participate in, the KYMRIAH registry.

Collaboration between primary hematologist/oncologist and KYMRIAH Treatment Center

KYMRIAH Treatment Center

Novartis facility in Morris Plains, NJ

IMPORTANT SAFETY INFORMATION (continued)

Cytokine Release Syndrome (continued)**:** Delay KYMRIAH infusion after lymphodepleting chemotherapy if patient has unresolved serious adverse reactions from preceding chemotherapies, active uncontrolled infection, active graft vs host disease, or worsening of leukemia burden.

Ensure 2 doses of tocilizumab are available on-site prior to KYMRIAH infusion. Monitor patients for signs or symptoms of CRS 2-3 times during the first week, then for at least 4 weeks after treatment. Counsel patients to remain within proximity of the health care facility for at least 4 weeks following infusion and seek immediate medical attention should signs or symptoms of CRS occur at any time. At the first sign of CRS, immediately evaluate the patient for hospitalization and institute treatment with supportive care, tocilizumab, and/or corticosteroids as indicated.

Risk factors for severe CRS in the r/r ALL population are high pre-infusion tumor burden (>50% blasts in bone marrow), uncontrolled or accelerating tumor burden following lymphodepleting chemotherapy, active infections, and/or inflammatory processes. Risk factors for developing severe CRS in r/r DLBCL are unknown.

Please see additional Important Safety Information throughout and click here for full Prescribing Information for KYMRIAH, including Boxed WARNING, and Medication Guide.

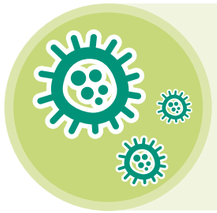
Neurological Toxicities: Neurological toxicities, including severe or life-threatening reactions, occurred in 49 (72%) of the 68 patients with r/r ALL and 62 (58%) of the 106 patients with r/r DLBCL following treatment with KYMRIAH, including ≥ grade 3 in 21% of patients with r/r ALL and 18% of patients with r/r DLBCL. Among patients who had a neurological toxicity, 88% occurred within 8 weeks following KYMRIAH infusion. Median time to the first event was 6 days from infusion (range: 1-359), and the median duration was 6 days for patients with r/r ALL and 14 days for patients with r/r DLBCL. Resolution occurred within 3 weeks in 79% of patients with r/r ALL and 61% of patients with r/r DLBCL. Encephalopathy lasting up to 50 days was noted. The onset of neurological toxicity can be concurrent with CRS, following resolution of CRS, or in the absence of CRS.

KYMRIAH® (tisagenlecleucel) Suspension for IV infusion

DETERMINING PATIENT READINESS FOR LEUKAPHERESIS[3]

Timing recommendations with current and previous therapy

For the optimal chance of manufacturing success, collection of leukapheresis material should be properly timed with current and previous therapy schedules. Contact the KYMRIAH® (tisagenlecleucel) Treatment Center to coordinate cessation of medications prior to leukapheresis collection.



Infections

Patients with an acute infection (bacterial, viral, or fungal) or a positive blood culture should not undergo leukapheresis collection. For patients with a positive blood culture, a full course of anti-infective therapy should be completed before leukapheresis collection to avoid contamination of the product.

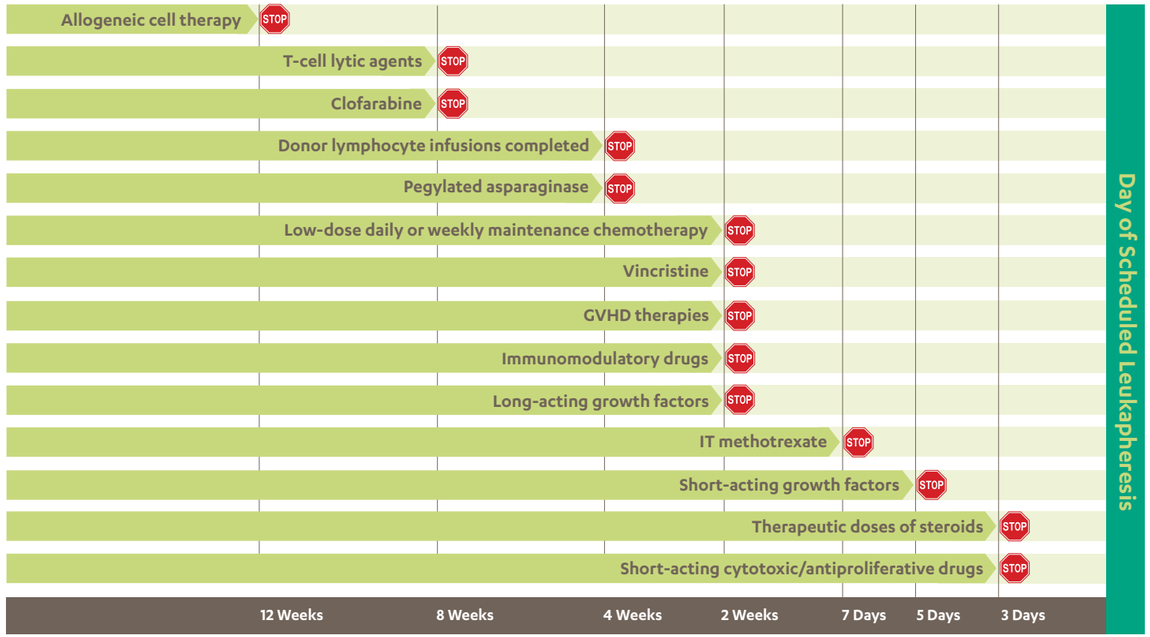
Intrathecal Chemotherapy

Intrathecal (IT) chemotherapy should be held before leukapheresis collection. If indicated, IT cytarabine may be given and leukapheresis collection started any time following IT cytarabine. Leukapheresis collection may be started 1 week or more after IT methotrexate.

Steroids

Physiological replacement doses of steroids are allowed, up to 12 mg/m^2/d hydrocortisone or equivalent. Topical steroids for localized treatment of graft-vs-host disease (GVHD) are allowed.

CESSATION OF MEDICATIONS PRIOR TO LEUKAPHERESIS[3]



IMPORTANT SAFETY INFORMATION (continued)

Neurological Toxicities (continued)**:** The most common neurological toxicities observed with KYMRIAH included headache (37% r/r ALL; 21% r/r DLBCL), encephalopathy (34% r/r ALL; 16% r/r DLBCL), delirium (21% r/r ALL; 6% r/r DLBCL), anxiety (13% r/r ALL; 9% r/r DLBCL), sleep disorders (10% r/r ALL; 9% r/r DLBCL), dizziness (6% r/r ALL; 11% r/r DLBCL), tremor (9% r/r ALL; 7% r/r DLBCL), and peripheral neuropathy (4% r/r ALL; 8% r/r DLBCL). Other manifestations included seizures, mutism, and aphasia.

Monitor patients for neurological events, specifically 2-3 times during the first week following KYMRIAH infusion, and exclude other causes for neurological symptoms. Provide supportive care as needed for KYMRIAH-associated neurological events.

Please see additional Important Safety Information throughout and click here for full Prescribing Information for KYMRIAH, including Boxed WARNING, and Medication Guide.

KYMRIAH REMS to Mitigate CRS and Neurological Toxicities: Because of the risk of CRS and neurological toxicities, KYMRIAH is available only through a restricted program under a Risk Evaluation and Mitigation Strategy (REMS) called the KYMRIAH REMS. Further information is available at www.kymriah-rems.com or 1-844-4KYMRIAH (1-844-459-6742).

Hypersensitivity Reactions: Allergic reactions may occur with KYMRIAH. Serious hypersensitivity reactions, including anaphylaxis, may be due to dimethyl sulfoxide or dextran 40 in KYMRIAH.

KYMRIAH®
(tisagenlecleucel) Suspension for IV infusion

INDICATIONS

KYMRIAH® (tisagenlecleucel) is a CD19-directed genetically modified autologous T cell immunotherapy indicated for the treatment of:

- Patients up to 25 years of age with B-cell precursor acute lymphoblastic leukemia (ALL) that is refractory or in second or later relapse
- Adult patients with relapsed or refractory (r/r) large B-cell lymphoma after two or more lines of systemic therapy including diffuse large B-cell lymphoma (DLBCL) not otherwise specified, high-grade B-cell lymphoma, and DLBCL arising from follicular lymphoma

Limitation of Use: KYMRIAH is not indicated for treatment of patients with primary central nervous system lymphoma.

IMPORTANT SAFETY INFORMATION for KYMRIAH® (tisagenlecleucel)

WARNING: CYTOKINE RELEASE SYNDROME AND NEUROLOGICAL TOXICITIES

- **Cytokine Release Syndrome (CRS), including fatal or life-threatening reactions, occurred in patients receiving KYMRIAH. Do not administer KYMRIAH to patients with active infection or inflammatory disorders. Treat severe or life-threatening CRS with tocilizumab, or tocilizumab and corticosteroids**
- **Neurological toxicities, which may be severe or life-threatening, can occur following treatment with KYMRIAH, including concurrently with CRS. Monitor for neurological events after treatment with KYMRIAH. Provide supportive care as needed**
- **KYMRIAH is available only through a restricted program under a Risk Evaluation and Mitigation Strategy (REMS) called the KYMRIAH REMS**

Warnings and Precautions

Cytokine Release Syndrome: CRS, including fatal or life-threatening reactions, occurred following treatment with KYMRIAH. CRS occurred in 54 (79%) of the 68 patients with r/r ALL and 78 (74%) of the 106 patients with r/r DLBCL receiving KYMRIAH, including ≥ grade 3 (Penn Grading System) in 49% of patients with r/r ALL and in 23% of patients with r/r DLBCL. The median time to onset was 3 days (range: 1-51), and in only 2 patients was onset after Day 10. The median time to resolution was 8 days (range: 1-36).

Of the 54 patients with r/r ALL who had CRS, 27 (50%) received tocilizumab; 7 (13%) received 2 doses of tocilizumab, 3 (6%) received 3 doses of tocilizumab and 14 (26%) received addition of corticosteroids (eg, methylprednisolone). Of the 78 patients with r/r DLBCL who had CRS, 16 (21%) received systemic tocilizumab or corticosteroids. Six (8%) received a single dose of tocilizumab, 10 (13%) received 2 doses of tocilizumab, and 10 (13%) received corticosteroids in addition to tocilizumab. Two patients with r/r DLBCL received corticosteroids for CRS without concomitant tocilizumab, and 2 patients received corticosteroids for persistent neurotoxicity after resolution of CRS.

Five deaths occurred within 30 days of KYMRIAH infusion. One patient with r/r ALL died with CRS and progressive leukemia, and 1 patient had resolving CRS with abdominal compartment syndrome, coagulopathy, and renal failure when an intracranial hemorrhage occurred. Of the 3 patients with r/r DLBCL who died within 30 days of infusion, all had history of CRS in the setting of stable to progressive underlying disease, 1 of whom developed bowel necrosis. Among patients with CRS, key manifestations included fever (92% r/r ALL and r/r DLBCL), hypotension (67% r/r ALL; 47% r/r DLBCL), hypoxia (20% r/r ALL; 35% r/r DLBCL), and tachycardia (30% r/r ALL; 14% r/r DLBCL). CRS may be associated with hepatic, renal, and cardiac dysfunction, and coagulopathy.

Delay KYMRIAH infusion after lymphodepleting chemotherapy if patient has unresolved serious adverse reactions from preceding chemotherapies, active uncontrolled infection, active graft vs host disease, or worsening of leukemia burden.

Ensure 2 doses of tocilizumab are available on-site prior to KYMRIAH infusion. Monitor patients for signs or symptoms of CRS 2-3 times during the first week, then for at least 4 weeks after treatment. Counsel patients to remain within proximity of the health care facility for at least 4 weeks following infusion and seek immediate medical attention should signs or symptoms of CRS occur at any time. At the first sign of CRS, immediately evaluate the patient for hospitalization and institute treatment with supportive care, tocilizumab, and/or corticosteroids as indicated.

Risk factors for severe CRS in the r/r ALL population are high pre-infusion tumor burden (>50% blasts in bone marrow), uncontrolled or accelerating tumor burden following lymphodepleting chemotherapy, active infections, and/or inflammatory processes. Risk factors for developing severe CRS in r/r DLBCL are unknown.

Neurological Toxicities: Neurological toxicities, including severe or life-threatening reactions, occurred in 49 (72%) of the 68 patients with r/r ALL and 62 (58%) of the 106 patients with r/r DLBCL following treatment with KYMRIAH, including ≥ grade 3 in 21% of patients with r/r ALL and 18% of patients with r/r DLBCL. Among patients who had a neurological toxicity, 88% occurred within 8 weeks following KYMRIAH infusion. Median time to the first event was 6 days from infusion (range: 1-359), and the median duration was 6 days for patients with r/r ALL and 14 days for patients with r/r DLBCL. Resolution occurred within 3 weeks in 79% of patients with r/r ALL and 61% of patients with r/r DLBCL. Encephalopathy lasting up to 50 days was noted. The onset of neurological toxicity can be concurrent with CRS, following resolution of CRS, or in the absence of CRS.

The most common neurological toxicities observed with KYMRIAH included headache (37% r/r ALL; 21% r/r DLBCL), encephalopathy (34% r/r ALL; 16% r/r DLBCL), delirium (21% r/r ALL; 6% r/r DLBCL), anxiety (13% r/r ALL; 9% r/r DLBCL), sleep disorders (10% r/r ALL; 9% r/r DLBCL), dizziness (6% r/r ALL; 11% r/r DLBCL), tremor (9% r/r ALL; 7% r/r DLBCL), and peripheral neuropathy (4% r/r ALL; 8% r/r DLBCL). Other manifestations included seizures, mutism, and aphasia.

Monitor patients for neurological events, specifically 2-3 times during the first week following KYMRIAH infusion, and exclude other causes for neurological symptoms. Provide supportive care as needed for KYMRIAH-associated neurological events.

KYMRIAH REMS to Mitigate CRS and Neurological Toxicities: Because of the risk of CRS and neurological toxicities, KYMRIAH is available only through a restricted program under a Risk Evaluation and Mitigation Strategy (REMS) called the KYMRIAH REMS. Further information is available at www.kymriah-rems.com or 1-844-4KYMRIAH (1-844-459-6742).

Hypersensitivity Reactions: Allergic reactions may occur with KYMRIAH. Serious hypersensitivity reactions, including anaphylaxis, may be due to dimethyl sulfoxide or dextran 40 in KYMRIAH.

Please click here for full Prescribing Information for KYMRIAH, including Boxed WARNING, and Medication Guide.

KYMRIAH®
(tisagenlecleucel) Suspension for IV infusion

IMPORTANT SAFETY INFORMATION (continued)

Serious Infections: Infections, including life-threatening or fatal infections, occurred in 95 (55%) of 174 patients with r/r ALL or with r/r DLBCL after KYMRIAH® (tisagenlecleucel) infusion. Fifty-eight patients (33%) experienced grade ≥3 infections, including fatal infections in 2 patients (3%) with r/r ALL and 1 patient (1%) with r/r DLBCL. Prior to KYMRIAH infusion, infection prophylaxis should follow local guidelines. Patients with active uncontrolled infection should not start KYMRIAH treatment until the infection is resolved. Monitor patients for signs and symptoms of infection after treatment with KYMRIAH and treat appropriately.

Febrile neutropenia (≥ grade 3) was also observed in 37% of patients with r/r ALL and 17% of patients with r/r DLBCL after KYMRIAH infusion and may be concurrent with CRS. In the event of febrile neutropenia, evaluate for infection and manage with broad spectrum antibiotics, fluids, and other supportive care as medically indicated.

Hepatitis B virus (HBV) reactivation, in some cases resulting in fulminant hepatitis, hepatic failure, and death, can occur in patients treated with drugs directed against B cells. Perform screening for HBV, HCV, and HIV in accordance with clinical guidelines before cell collection for manufacturing.

Prolonged Cytopenias: Patients may exhibit cytopenias for several weeks following lymphodepleting chemotherapy and KYMRIAH infusion. In patients with r/r ALL, ≥ grade 3 cytopenias not resolved by Day 28 following KYMRIAH treatment included neutropenia (40%) and thrombocytopenia (27%) among 52 responding patients. At 56 days following KYMRIAH, 17% and 12% of responding patients had ≥ grade 3 neutropenia or thrombocytopenia respectively. In patients with r/r DLBCL, grade ≥3 cytopenias not resolved by Day 28 following KYMRIAH treatment included thrombocytopenia (40%) and neutropenia (25%) among 106 treated patients. Prolonged neutropenia has been associated with increased risk of infection. Myeloid growth factors, particularly GM-CSF, are not recommended during the first 3 weeks after KYMRIAH infusion or until CRS has resolved.

Hypogammaglobulinemia: Hypogammaglobulinemia and agammaglobulinemia (IgG) related to B-cell aplasia can occur in patients with a complete remission after KYMRIAH infusion. Hypogammaglobulinemia was reported in 43% of patients with r/r ALL and 14% of patients with r/r DLBCL. Monitor immunoglobulin levels after treatment with KYMRIAH and manage using infection precautions, antibiotic prophylaxis, and immunoglobulin replacement standard guidelines.

The safety of immunization with live viral vaccines during or following KYMRIAH treatment has not been studied. Vaccination with live virus vaccines is not recommended for at least 6 weeks prior to the start of lymphodepleting chemotherapy, during KYMRIAH treatment, and until immune recovery following treatment with KYMRIAH.

Pregnant women who have received KYMRIAH may have hypogammaglobulinemia. Assess immunoglobulin levels in newborns of mothers treated with KYMRIAH.

Secondary Malignancies: Patients treated with KYMRIAH may develop secondary malignancies or recurrence of their cancer. Monitor lifelong for secondary malignancies. If a secondary malignancy occurs, call 1-844-4KYMRIAH to obtain instructions on patient samples to collect for testing.

Effects on Ability to Drive and Use Machines: Due to the potential for neurological events, including altered mental status or seizures, patients receiving KYMRIAH are at risk for altered or decreased consciousness or coordination in the 8 weeks following infusion. Advise patients to refrain from driving and engaging

Please click here for full Prescribing Information for KYMRIAH, including Boxed WARNING, and Medication Guide.

IMPORTANT SAFETY INFORMATION (continued)

in hazardous occupations or activities, such as operating heavy or potentially dangerous machinery, during this initial period.

Drug Interactions

HIV and the lentivirus used to make KYMRIAH have limited, short spans of identical genetic material (RNA). Therefore, some commercial HIV nucleic acid tests (NATs) may yield false positive results in patients who have received KYMRIAH.

Pregnancy, Lactation, Females and Males of Reproductive Potential

No data are available of KYMRIAH use in pregnant or lactating women. Therefore, KYMRIAH is not recommended for women who are pregnant or breastfeeding. Pregnancy after KYMRIAH administration should be discussed with the treating physician. Pregnancy status of females of reproductive potential should be verified with a pregnancy test prior to starting treatment with KYMRIAH. Report pregnancies to Novartis Pharmaceuticals Corporation at 1-888-669-6682.

Adverse Reactions

The most common adverse reactions (>20%) reported in patients with r/r ALL were cytokine release syndrome, hypogammaglobulinemia, infections-pathogen unspecified, pyrexia, decreased appetite, headache, encephalopathy, hypotension, bleeding episodes, tachycardia, nausea, diarrhea, vomiting, viral infectious disorders, hypoxia, fatigue, acute kidney injury, edema, cough, and delirium.

The most common adverse reactions (>20%) reported in patients with r/r DLBCL were cytokine release syndrome, infections-pathogen unspecified, pyrexia, diarrhea, nausea, fatigue, hypotension, edema, and headache.

References: 1. Haining WN, Neuberg DS, Keczkemethy HL, et al. Antigen-specific T-cell memory is preserved in children treated for acute lymphoblastic leukemia. *Blood*. 2005;106(5):1749-1754. **2.** Kymriah [prescribing information]. East Hanover, NJ: Novartis Pharmaceuticals Corp; 2018. **3.** Data on file. Novartis CTL019 leukapheresis reference manual: leukapheresis collection. Novartis Pharmaceuticals Corp; Dec 2016. **4.** Klebanoff CA, Khong HT, Antony PA, Palmer DC, Restifo NP. Sinks, suppressors and antigen presenters: how lymphodepletion enhances T cell-mediated tumor immunotherapy. *Trends Immunol*. 2005;26(2):111-117.

KYMRIAH® (tisagenlecleucel) Suspension for IV infusion

KYMRIAH®
(tisagenlecleucel) Suspension for IV infusion

Visit **KYMRIAH-hcp.com** or call
1-844-4KYMRIAH (1-844-459-6742)
to find KYMRIAH® (tisagenlecleucel)
Treatment Center contact information.

Please see Important Safety Information throughout and click here for full Prescribing Information for KYMRIAH, including Boxed WARNING, and Medication Guide.

NOVARTIS

Novartis Pharmaceuticals Corporation
East Hanover, New Jersey 07936-1080

5/18
KYD-1184960