SHORLA ONCOLOGY®

Nelarabine Injection

INDICATION

Nelarabine Injection is a nucleoside metabolic inhibitor indicated for the treatment of patients with T-cell acute lymphoblastic leukemia (T-ALL) and T-cell lymphoblastic lymphoma (T-LBL) in adult and pediatric patients age 1 year and older whose disease has not responded to or has relapsed following treatment with at least two chemotherapy regimens.[1]

ENSURING ACCESS

- One of a limited number of products used to treat patients with T-ALL and T-LBL, Arranon® (nelarabine) injection suffered shortages in 2018 and 2019[2]
- Through key partner relationships, **Shorla Oncology** is helping to ensure that its **Nelarabine Injection will continue to be available** for patients who need this treatment
- **Shorla Oncology's** generic formulation of Nelarabine Injection **is manufactured in Germany**
- **Shorla Oncology is committed to maintaining an ongoing supply** of and full access to its Nelarabine Injection, the company's first in-market product

NELARABINE INJECTION OVERVIEW[1]

DOSAGE AND ADMINISTRATION

Adult Dosage: The recommended adult dose of Nelarabine Injection is 1500 mg/m^2 administered intravenously over 2 hours on Days 1, 3, and 5, repeated every 21 days. Administer Nelarabine Injection undiluted.

Pediatric Dosage: The recommended pediatric dose of Nelarabine Injection is 650 mg/m^2 administered intravenously over 1 hour daily for 5 consecutive days, repeated every 21 days. Administer Nelarabine Injection undiluted.

Please see full **Prescribing Information** for more information on dosing and administration.

STORAGE

Store at 20 °C to 25 °C (68 °F to 77 °F); excursions permitted to 15 °C to 30 °C (59 °F to 86 °F). Discard unused portion.

HOW SUPPLIED

SINGLE-DOSE VIAL	• Contains 250 mg/50 mL of nelarabine (5 mg nelarabine per mL) • **NDC number:** 81927-111-01
6-VIAL PACKS	• Contains 6 x 250 mg/50 mL of nelarabine (5 mg nelarabine per mL) • **NDC number:** 81927-111-06
HCPCS CODE	J-9261
DESCRIPTION	Injection, nelarabine, 50 mg; 1 billable unit = 50 mg

HCPCS=Healthcare Common Procedure Coding System; NDC=National Drug Code.

HOW TO ORDER

AUTHORIZED DISTRIBUTORS

Please click **here** for distributor information.

ORDER DIRECT

Shorla Oncology representatives are available to assist you from 8 AM to 5 PM CST.

844-9-SHORLA, option 2

414-501-3169

shorlacs@eversana.com

IMPORTANT SAFETY INFORMATION

WARNING: NEUROLOGIC ADVERSE REACTIONS

Severe neurologic adverse reactions have been reported with the use of Nelarabine Injection. These adverse reactions have included altered mental states including severe somnolence, central nervous system effects including convulsions, and peripheral neuropathy ranging from numbness and paresthesias to motor weakness and paralysis. There have also been reports of adverse reactions associated with demyelination, and ascending peripheral neuropathies similar in appearance to Guillain-Barré syndrome.

Full recovery from these adverse reactions has not always occurred with cessation of therapy with Nelarabine Injection. Monitor frequently for signs and symptoms of neurologic toxicity. Discontinue Nelarabine Injection for neurologic adverse reactions of NCI Common Toxicity Criteria for Adverse Events (CTCAE) Grade 2 or greater.

Please see additional Important Safety Information starting on page 2. Please click here for full Prescribing Information, including Boxed Warning.

For more information, please visit **shorlaoncology.com/product/nelarabine-injection**.

IMPORTANT SAFETY INFORMATION (cont'd)

WARNINGS AND PRECAUTIONS

Neurologic Adverse Reactions

- Nervous system adverse reactions of any grade were reported for 223 (76%) adult patients across the Phase I and Phase II trials, and Grade 3 or higher (severe, life-threatening, or fatal) adverse reactions were reported for 55 (19%) patients following initiation of Nelarabine Injection therapy. Based on patients with complete data, the median time to onset of the first event is 5 days from the start of the first infusion (range: 1-166), and the median duration is 6 days (range: 1-393 days). Nervous system adverse reactions of any grade were reported for 69 (42%) pediatric patients across the Phase I and Phase II trials, and Grade 3 or higher (severe, life-threatening, or fatal) adverse reactions were reported for 25 (15%) patients following initiation of Nelarabine Injection therapy. Based on patients with complete data, the median time to onset of the first event is 8 days from the start of the first infusion (range: 1-269), and the median duration is 2 days (range: 1-82 days).
- Common signs and symptoms of Nelarabine Injection-related neurotoxicity include somnolence, headache, paresthesia and dysesthesia, dizziness, neuropathy (sensory and motor), cerebellar disturbances, and tremor. Severe neurologic toxicity can manifest as coma, status epilepticus, craniospinal demyelination, or ascending neuropathy similar in presentation to Guillain-Barré syndrome. Full recovery from these adverse reactions has not always occurred with cessation of therapy with Nelarabine Injection. Patients treated previously or concurrently with intrathecal chemotherapy or previously with craniospinal irradiation may be at increased risk for neurologic adverse events.
- Monitor patients frequently for signs and symptoms of neurologic toxicity during and for at least 24 hours after completion of treatment with Nelarabine Injection. Discontinue Nelarabine Injection for neurologic adverse reactions of National Cancer Institute (NCI) Common Terminology Criteria for Adverse Events (CTCAE) Grade 2 or greater and provide supportive care.

Hematologic Adverse Reactions

- Leukopenia, thrombocytopenia, anemia, and neutropenia, including febrile neutropenia, have been associated with Nelarabine Injection therapy. Complete blood counts including platelets should be monitored regularly.

Embryo-Fetal Toxicity

- Based on its mechanism of action and findings in animal studies, Nelarabine Injection can cause fetal harm when administered to a pregnant woman. In animal reproduction studies, intravenous administration of nelarabine to pregnant rabbits during the period of organogenesis resulted in teratogenicity at maternal doses below the recommended human adult dose of 1500 mg/m^2/day. Advise pregnant women of the potential risk to the fetus. Advise females of reproductive potential to use effective contraception during treatment with Nelarabine Injection. Advise males with female partners of reproductive potential to use condoms during treatment with Nelarabine Injection and for 3 months after the last dose.

Tumor Lysis Syndrome

- Patients receiving Nelarabine Injection should receive intravenous hydration according to standard medical practice for the management of hyperuricemia in patients at risk for tumor lysis syndrome. Consideration should be given to the use of allopurinol in patients at risk of hyperuricemia.

Vaccinations

- Avoid the administration of live vaccines to immunocompromised patients.

Effects on Ability to Drive and Use Machines

- Patients treated with Nelarabine Injection may experience somnolence during and for several days after treatment. Advise patients to refrain from driving or engaging in hazardous occupations or activities until somnolence has resolved.

ADVERSE REACTIONS

The Most Common (≥20%) Adverse Reactions were:

- **Adult**: anemia, thrombocytopenia, neutropenia, nausea, diarrhea, vomiting, constipation, fatigue, pyrexia, cough, and dyspnea.
- **Pediatric**: anemia, neutropenia, thrombocytopenia, and leukopenia.

The Most Common (>10%) Neurologic Adverse Reactions were:

- **Adult**: somnolence, dizziness, peripheral neurologic disorders, hypoesthesia, headache, and paresthesia.
- **Pediatric**: headache and peripheral neurologic disorders.

Dose Modifications due to Neurologic Adverse Reactions

- Discontinue Nelarabine Injection if the patient develops a neurologic adverse reaction of NCI CTCAE Grade 2 or greater. Dosage may be delayed for other toxicity, including hematologic toxicity.

IMPORTANT SAFETY INFORMATION (cont'd)

DRUG INTERACTIONS

- Administration of Nelarabine Injection in combination with adenosine deaminase (ADA) inhibitors, such as pentostatin, is not recommended.

USE IN SPECIFIC POPULATIONS

Pregnancy

- Based on its mechanism of action and findings in animal studies, Nelarabine Injection can cause fetal harm when administered to a pregnant woman. Advise pregnant women of the potential risk to the fetus. There are risks to the mother from untreated leukemia or lymphoma, including anemia, thrombocytopenia, and death.

Lactation

- There are no data on the presence of nelarabine or ara-G in human or animal milk, the effect on the breastfed child, or the effect on milk production. Because of the potential for serious adverse reactions in the breastfed child from Nelarabine Injection, such as severe neurological reactions, advise women not to breastfeed during treatment with Nelarabine Injection.

Females and Males of Reproductive Potential

- Nelarabine Injection can cause fetal harm when administered to a pregnant woman. Verify the pregnancy status of females of reproductive potential prior to starting treatment with Nelarabine Injection. Advise females of reproductive potential to use effective contraception during treatment. Avoid becoming pregnant while receiving treatment with Nelarabine Injection. Instruct females to inform their physician of a known or suspected pregnancy. Advise males (including those who have had vasectomies) with female partners of reproductive potential to use condoms during treatment with Nelarabine Injection and for 3 months after the last dose.

Geriatric Use

- Clinical studies of Nelarabine Injection did not include sufficient numbers of patients aged 65 and over to determine whether they respond differently from younger patients. In an exploratory analysis, increasing age, especially age 65 years and older, appeared to be associated with increased rates of neurologic adverse reactions. Because elderly patients are more likely to have decreased renal function, care should be taken in dose selection.

Renal Impairment

- Ara-G clearance decreased as renal function decreased. Because the risk of adverse reactions to this drug may be greater in patients with moderate (CrCl 30 to 50 mL/min) or severe (CrCl less than 30 mL/min) renal impairment, these patients should be closely monitored for toxicities when treated with Nelarabine Injection.

Hepatic Impairment

- Because the risk of adverse reactions to this drug may be greater in patients with severe hepatic impairment (total bilirubin greater than 3 times the upper limit of normal), these patients should be closely monitored for toxicities when treated with Nelarabine Injection.

To report SUSPECTED ADVERSE REACTIONS, contact Shorla Oncology at 844-9-SHORLA or FDA at 1-800-FDA-1088 or **www.fda.gov/medwatch**.

Please click here for full Prescribing Information, including Boxed Warning.

References: 1. Nelarabine Injection [prescribing information]. Cambridge, MA: Shorla Oncology; December 2022. **2.** Drugs.com. Drug Shortages. Nelarabine Injection. Updated October 22, 2019. Accessed December 2, 2022. **https://www.drugs.com/drug-shortages/nelarabine-injection-458**

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