Arsenic Trioxide

Names

The generic drug name is arsenic trioxide (AR-sen-ik try-OX-ide). Brand name is Trisenox®. There may be other names for this medication.

Why am I Receiving Arsenic Trioxide and How is it Given?

This drug is used to treat acute promyelocytic leukemia (APL). It may also be used in the treatment of multiple myeloma, chronic myelogenous leukemia (CML), and acute myelogenous leukemia (AML).

Your medicine will be infused into a vein (intravenous/IV), usually over 1-2 hours. The infusion may be given over 4 hours if a patient reacts to the infusion with a drop in blood pressure and lightheadedness.

How Does it Work?

Arsenic trioxide slows or stops the growth of cancer cells, though it is not known exactly how it works against leukemia.

Arsenic trioxide comes from arsenic, a basic element of nature. Arsenic combines with other elements to form inorganic or organic compounds, but it cannot be destroyed in the environment. It has been used for medical purposes for more than 2000 years.

What Should I Tell My Doctor Before I Begin?

Tell your doctor if you:

- have had an allergic reaction to arsenic trioxide or have any allergies
- have heart rhythms, congestive heart failure, low magnesium or potassium levels in your blood, or kidney problems or take heart medication
- are pregnant or breastfeeding

This drug may interact with other medications or cause harmful side effects. Tell your doctor and pharmacist about all prescription or over-the-counter medications, vitamins, herbal, or diet supplements that you take.

What Are Some Possible Side Effects?

- Excessive tiredness
dizziness, headache, sleep problems
- Diarrhea and/or abdominal pain
- Swelling (edema) of the face, hands, feet, or legs
- Rash and/or itching
- Nausea and vomiting
- Cough
- Numbness or tingling in hands or feet (peripheral neuropathy)
- Fever, chills, and/or sore throat
- Infertility (in men), birth defects
How Can I Manage These Side Effects?

• Ask your doctor about medication to prevent/lessen headache and diarrhea.
• If you vomit or have diarrhea, you are at risk for dehydration. To prevent dehydration, drink 2-3 quarts a day, especially water, unless your doctor has told you to watch your fluid intake.
• To help prevent nausea, avoid fried, spicy, and fatty foods on the days you receive chemo and for 2-3 days afterwards. Eating small, frequent meals may help. If you have nausea, try foods and drinks that are ‘easy on the stomach’ - bland foods, ginger ale, dry crackers, and toast.
• Do not put anything on a skin rash or irritation unless your doctor has given his or her approval.
• To help prevent edema, do not stand for long periods of time. Keep your legs elevated when sitting or lying down. Avoid wearing tight-fitting clothing and shoes. Weigh yourself often. Contact your provider if the swelling becomes painful, limits your ability to walk or care for yourself, or if you gain more than 5 pounds in 1 week.
• Always check with your doctor before taking any medication/product not prescribed by your doctor.

When Should I Call the Doctor?

Call 911 or go to the nearest hospital emergency department if you have life-threatening symptoms such as signs of severe allergic reaction: Swelling or tingling in your face, tongue, mouth, or throat; chest tightness; wheezing; trouble breathing or swallowing; dizziness, shortness of breath; or heart palpitations.

Please let us know if you go to the ER or are admitted to the hospital.

Call your doctor immediately if you have:

• signs of infection: Fever of 100.4°F (38°C) or higher, chills, cough, sore throat, pain or burning upon urination; redness or tenderness at a skin wound
• unusual bruising or bleeding: bleeding for more than 10-15 minutes or that causes dizziness; blood in your stool, vomit, mucus, or urine (may look black)
• signs of hyperglycemia (high blood sugar): Extreme thirst, frequent urination, extreme hunger, weakness, or blurred vision. If not corrected, a very serious condition, diabetic ketoacidosis, may develop (dry mouth, nausea vomiting, shortness of breath, breath that smells fruity, and decreased consciousness)
• signs of encephalopathy: Confusion; loss of consciousness; seizures; speech changes; problems with coordination, balance, or walking; or visual changes such as decreased visual perception, reading problems, or double vision
• irregular or fast heartbeat or if you faint
• decreased urination
• changes in heart rhythm and/or rapid heart beats
Call your doctor as soon as possible if you have:

- numbness, tingling, pain, or burning feeling in your feet or hands; difficulty walking or changes in the way you walk; or clumsiness in buttoning clothes, opening jars, or other routine activities (signs of peripheral neuropathy)
- nausea that is not relieved by prescribed medicine or that prevents you from eating or drinking
- extreme tiredness that interferes with normal activities
- more than 4 episodes of vomiting or diarrhea in one day
- diarrhea with weakness
- sudden weight gain

What Else Should I Know About Arsenic Trioxide?

- This drug may cause a life-threatening group of symptoms called APL differentiation syndrome. We will monitor you carefully. At the first sign that you are developing APL differentiation syndrome, your doctor will prescribe one or more medications at the first sign you are developing this syndrome. You may be asked to weigh yourself every day in the first weeks of treatment. Call your doctor immediately if you have fever, weight gain, shortness of breath, trouble breathing, chest pain, and cough.
- May cause QT prolongation, a condition in which the heart muscles take longer to recharge between beats due to an electrical disturbance. QT prolongation can cause serious/ life-threatening heart rhythm problems. Your doctor will order tests to monitor your heart before you begin, and during, treatment.
- May cause encephalopathy (confusion, memory problems, and other difficulties caused by abnormal brain function). Tell your doctor if you drink or have ever drunk large amounts of alcohol, if you have malabsorption syndrome (problems absorbing food), a nutritional deficiency, or if you are taking furosemide (Lasix). Be sure that your family or caregiver knows which symptoms may be serious so they can seek treatment if you are unable to call on your own.
- Tell all your healthcare providers, including dentists and pharmacists, that you are receiving arsenic trioxide.
- Do not get pregnant or father a child while you are receiving arsenic trioxide. Use an effective method of birth control during treatment - a barrier method like condoms or a diaphragm is recommended. If you think you have become pregnant while using the medicine, tell your doctor right away.
- Since this medication may cause infertility in men, any male who may want children in the future should talk to their doctor about sperm banking before starting this treatment. 

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What Else Should I Know About Arsenic Trioxide?

- Do not breastfeed while taking arsenic trioxide.
- Avoid seafood, homeopathic remedies, and other potential sources of arsenic.
- Peripheral neuropathy (numbness, tingling, pain, decreased sensation) may worsen over time while you are in treatment. It is important that you tell your doctor and nurses if you are having symptoms.
- Keep all your doctor and lab appointments.
- If you would like more information about arsenic trioxide, talk to your doctor or pharmacist.