Generic Name: Bendamustine Hydrochloride
Trade Name(s): Treanda

Drug Type:
Bendamustine is an anti-cancer chemotherapy drug and is classified as an alkylating agent.

What Conditions Are Treated by Bendamustine:
Bendamustine is FDA-approved for treatment of chronic lymphocytic leukemia (CLL) and indolent B-cell non-Hodgkin’s lymphoma (NHL). Bendamustine may be combined with the monoclonal antibody Rituxan for the treatment of WM.

How Bendamustine Is Given:
Bendamustine is given as an infusion into a vein (intravenous, IV). There is no pill form of bendamustine.

The amount of bendamustine that you will receive depends on many factors, including your height, weight, and blood counts, your general health or other health problems, and the type of cancer or condition being treated. Your doctor will determine your dose and schedule.

Bendamustine Side Effects:
Most people will not experience all of the side effects listed. Side effects are often predictable in terms of their onset, duration, and severity. They are almost always reversible and will go away after therapy is completed.

The following bendamustine side effects are common (occurring in greater than 30% of patients): low blood counts (red cells, white cells, or platelets) and an increase in bilirubin levels. Bilirubin is a chemical that is released into the blood and results from the breakdown of red blood cells. When blood bilirubin levels are increased, it can be a sign of a liver or blood problem.

The following are less common side effects (occurring in about 10-30% of patients): infusion reaction (chills, fever, itching, rash which may require pre-medications), mouth sores, fever, nausea, vomiting, fatigue, and diarrhea.

A rare but serious complication of bendamustine therapy is tumor lysis syndrome, which occurs when large numbers of cancer cells are rapidly killed by the therapy. These cells release uric acid, potassium, and phosphorus into the bloodstream, which can lead to kidney failure. Tumor lysis syndrome usually occurs within 24-48 hours of therapy. Your doctor will prescribe plenty of fluids to keep you hydrated, and you may be given a drug called allopurinol that blocks uric acid production.

The long-term safety profile of bendamustine is not known. Because it is an alkylating agent, it may be potentially harmful to stem cells. Candidates for stem cell harvest or future autologous transplant should use caution in the choice of bendamustine for treatment.
When to Contact Your Doctor or Health Care Provider:
Contact your doctor or health care provider immediately, day or night, if you should experience any of the following symptoms: fever of 100.5°F (38°C) or higher or chills (both are possible signs of infection).

The following symptoms also require medical attention. Contact your doctor or health care provider if you notice any of the following: nausea, vomiting, diarrhea, unusual bleeding or bruising, black or tarry stools or blood in your stools, blood in your urine, pain or burning with urination, extreme fatigue, severe or worsening rash or itching, yellowing of skin or eyes, unable to eat or drink for 24 hours, or signs of dehydration.

Before starting bendamustine treatment, make sure you tell your doctor about any other medications you are taking. While taking bendamustine, do not take aspirin or products containing aspirin unless your doctor specifically permits this.

Always inform your health care provider if you experience any unusual symptoms.

Self-Care Tips While Taking Bendamustine:
While taking bendamustine, try to drink at least two to three quarts of fluid every 24 hours, (particularly the 24 hours before and 48 hours following the infusion) unless you are instructed otherwise.

You may be at risk of infection so try to avoid crowds or people with colds, and report fever or any other signs of infection immediately to your health care provider. Wash your hands often.

Use an electric razor and a soft toothbrush to minimize bleeding. Avoid contact sports or activities that could cause injury.

To help treat/prevent mouth sores while taking bendamustine, use a soft toothbrush and rinse three times a day with 1 teaspoon of baking soda mixed with 8 ounces of water.

To reduce nausea, take anti-nausea medications as prescribed by your doctor and eat small, frequent meals while taking bendamustine. In general, drinking alcoholic beverages should be kept to a minimum or avoided completely.

Avoid sun exposure. Wear SPF 15 (or higher) sun block and protective clothing.

Monitoring and Testing While Taking Bendamustine:
You will be checked regularly by your doctor while you are taking bendamustine to monitor side effects and check your response to therapy. Periodic blood work will be obtained to monitor your complete blood count (CBC) as well as the function of other organs (such as your kidneys and liver).

How Bendamustine Works:
Cancer cells no longer have the normal checks and balances in place that control and limit cell division. The ability of chemotherapy to kill cancer cells depends on its ability to halt cell division. Usually, the drugs work by damaging the RNA or DNA that tells the cell how to copy itself in division. If the cells are unable to divide, they die. The faster the cells are dividing, the more likely it is that chemotherapy will kill the cells. Chemotherapy can also induce cell suicide (self-death or apoptosis). The scheduling of chemotherapy is based on the type of cancer cells, the rate at which they divide, and the time at which a given drug is likely to be effective. This is why chemotherapy is typically given in cycles.
Chemotherapy is most effective at killing cells that are rapidly dividing. Unfortunately, chemotherapy does not differentiate between the cancer cells and normal cells. The normal cells will grow back and be healthy but in the meantime, side effects can occur. The normal cells most commonly affected by chemotherapy are the blood cells, the cells in the mouth, stomach and bowel, and the hair follicles – resulting in low blood counts, mouth sores, nausea, diarrhea, and/or hair loss, respectively.

**NOTE:** The information in this fact sheet is intended to be helpful and educational, but it does not constitute an endorsement by the IWMF and is not meant to be a substitute for professional medical advice.

Adapted from the Chemocare website, [www.chemocare.com](http://www.chemocare.com), sponsored by the Cleveland Clinic