Bleomycin (Blenoxane®)

**Pronounced:** bleh-oh-MY-sin

**Classification:** Antineoplastic Antibiotic

**About Bleomycin (Blenoxane®)**

The way bleomycin works is not fully understood. It is thought to interfere with cell reproduction and growth, reducing the number of cancer cells in the body.

**How to Take Bleomycin**

Bleomycin is given by intravenous (IV, into a vein) infusion, intramuscular (IM, into a muscle), or subcutaneous (SQ, under the skin) injections. It can be given alone or in combination with other medications.

Bleomycin can also be used as a "sclerosing" agent to treat pleural effusions. In this case, it causes scarring of the pleural space to prevent the effusion (fluid) from reaccumulating.

**Possible Side Effects**

There are a number of things you can do to manage the side effects of bleomycin. Talk to your care team about these recommendations. They can help you decide what will work best for you. These are some of the most common or important side effects:

**Pulmonary Toxicity**

Bleomycin may cause serious lung problems. The risk may be higher in the elderly or those who received high doses, but lung complications have occurred in young patients and with low doses. There is a lifetime maximum dose of this medication due to the potential for lung problems, which can include pneumonitis (inflammation of lung tissue) and pulmonary fibrosis (scarring and stiffening of the lung tissue). These problems can develop months to several years after treatment is completed. You may have breathing tests (pulmonary function tests) prior to starting bleomycin. Notify your healthcare provider if you develop shortness of breath, cough, wheezing, or difficulty breathing.

If you are considering any surgical procedure, inform your healthcare team that you have received bleomycin, as there is a greater risk for developing pulmonary toxicity in association with oxygen given during surgery.

It is strongly recommended that you do not smoke if you have received bleomycin, as this increases the risk of lung complications. You should report any shortness of breath, difficulty breathing, cough, or wheezing to your care provider. Lung complications can occur several years after treatment with bleomycin, so you should be sure all of your care providers know you received this medication and have any new lung symptoms evaluated. Of note, patients who have received this medication are recommended to have clearance by a dive medicine specialist prior to scuba diving.

**Allergic-Like Reactions**

An allergic-like reaction presenting as fever, chills, low blood pressure, wheezing or difficulty breathing may occur immediately or up to several days after receiving the treatment. If needed, medications are given to counteract these effects. If you experience any of these effects, notify your doctor or nurse right away.

**Nail and Skin Changes**
Your fingernails/toenails may become dark, thick, brittle or fall off. Your skin may be dry, feel thickened or appear darker (hyperpigmentation). Your skin may be more sensitive to the sun, which can result in severe sunburn or rash. Sun sensitivity can last even after you have stopped taking the medication. Avoid the sun between 10 am-2 pm when it is strongest. Wear sunscreen (at least SPF 15) every day, wear sunglasses and long sleeves/pants to protect your skin. Keep your fingernails and toenails clean and dry. You may use nail polish, but do not wear fake nails. Notify your doctor or nurse if any nails fall off.

This medication can also cause radiation recall. This is redness, swelling or blistering of the skin in an area that was previously treated (even years ago) with radiation. The goal of treatment for radiation recall is to manage the symptoms until it heals. Topical steroids or anti-inflammatory agents or cool compresses may help. Avoid sun exposure and tight-fitting clothes that would rub on the area.

**Loss or Thinning of Scalp and Body Hair (Alopecia)**

Your hair may become thin, brittle, or may fall out. This typically begins two to three weeks after treatment starts. This hair loss can be all body hair, including pubic, underarm, legs/arms, eyelashes, and nose hairs. The use of scarves, wigs, hats, and hairpieces may help. Hair generally starts to regrow soon after treatment is completed. Remember your hair helps keep you warm in cold weather, so a hat is particularly important in cold weather or to protect you from the sun.

**Mouth Ulcers (Mucositis)**

Certain cancer treatments can cause sores or soreness in your mouth and/or throat. Notify your oncology care team if your mouth, tongue, inside of your cheek or throat becomes white, ulcerated or painful. Performing regular mouth care can help prevent or manage mouth sores. If mouth sores become painful, your doctor or nurse can recommend a pain reliever.

- Brush with a soft-bristle toothbrush or cotton swab twice a day.
- Avoid mouthwashes that contain alcohol. A baking soda and/or salt with warm water mouth rinse (2 level teaspoons of baking soda or 1 level teaspoon of salt in an eight ounce glass of warm water) is recommended 4 times daily.
- If your mouth becomes dry, eat moist foods, drink plenty of fluids (6-8 glasses), and suck on sugarless hard candy.
- Avoid smoking and chewing tobacco, drinking alcoholic beverages, and citrus juices.

**Decrease in Appetite**

Nutrition is an important part of your care. Cancer treatment can affect your appetite and, in some cases, the side effects of treatment can make eating difficult. Ask your nurse about nutritional counseling services at your treatment center to help with food choices.

- Try to eat five or six small meals or snacks throughout the day, instead of 3 larger meals.
- If you are not eating enough, nutritional supplements may help.
- You may experience a metallic taste or find that food has no taste at all. You may dislike foods or beverages that you liked before receiving cancer treatment. These symptoms can last for several months or longer after treatment ends.
- Avoid any food that you think smells or tastes bad. If red meat is a problem, eat chicken, turkey, eggs, dairy products, and fish without a strong smell. Sometimes cold food has less of an odor.
- Add extra flavor to meat or fish by marinating it in sweet juices, sweet and sour sauce, or dressings. Use seasonings like basil, oregano, or rosemary to add flavor. Bacon, ham, and onion can add flavor to vegetables.

**Nausea and/or Vomiting**

Talk to your doctor or nurse so they can prescribe medications to help you manage nausea and vomiting. In addition, dietary changes may help. Avoid things that may worsen the symptoms, such as heavy or greasy/fatty, spicy or acidic foods (lemons, tomatoes, oranges). Try antacids, (e.g. milk of magnesia, calcium tablets such as Tums), saltines, or ginger ale to lessen symptoms.

Call your doctor or nurse if you are unable to keep fluids down for more than 12 hours or if you feel lightheaded or dizzy at any time.

**Reproductive Concerns**

Exposure of an unborn child to this medication could cause birth defects, so you should not become pregnant or father a child.
while on this medication. Effective birth control is necessary during treatment. Even if your menstrual cycle stops or you believe you are not producing sperm, you could still be fertile and conceive. You should not breastfeed while receiving bleomycin.

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