Teniposide (Vumon®, VM-26)

**Pronounced:** TEN-i-POE-side

**Classification:** Topoisomerase inhibitor

**About Teniposide (Vumon®, VM-26)**

Teniposide works by preventing cells from entering mitosis (cell division). The mechanism of action appears to be related to the inhibition of type II topoisomerase activity, an important enzyme in DNA replication. Teniposide causes breaks and cross-links in DNA, preventing it from being replicated, in turn inhibiting cell division and slowing or stopping the growth of cancer cells.

**How to Take Teniposide**

Teniposide is given by intravenous (into a vein) infusion. The dosage and schedule are determined by the person’s size, type of cancer, and the regimen being used.

Your blood pressure may drop while this medication is being infused. When receiving this medication through a vein, your nurse will be checking your blood pressure before and during the infusion. It may become necessary to stop the administration of this medication or slow down the infusion rate if your blood pressure drops.

Even when carefully and correctly administered by trained personnel, this drug may cause feelings of burning and pain. There is a risk that this drug may leak out of the vein at the injection site, resulting in tissue damage that can be severe. If the area of injection becomes red, swollen, or painful at any time during or after the injection, notify your care team. Do not apply anything to the site unless instructed by your care team.

Medications such as phenytoin, phenobarbital, voriconazole, and St. John’s Wort, may interact with teniposide. Make sure your provider is aware of all medications and supplements you are taking.

**Possible Side Effects of Teniposide**

There are a number of things you can do to manage the side effects of teniposide. 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 side effects:

**Low White Blood Cell Count (Leukopenia or Neutropenia)**

White blood cells (WBC) are important for fighting infection. While receiving treatment, your WBC count can drop, putting you at a higher risk of getting an infection. You should let your doctor or nurse know right away if you have a fever (temperature greater than 100.4°F or 38°C), sore throat or cold, shortness of breath, cough, burning with urination, or a sore that doesn’t heal.

**Tips to preventing infection:**

- **Washing hands,** both yours and your visitors, is the best way to prevent the spread of infection.
- **Avoid large crowds and people who are sick** (i.e.: those who have a cold, fever, or cough or live with someone with these symptoms).
- **When working in your yard,** wear protective clothing including long pants and gloves.
- **Do not handle pet waste.**
- **Keep all cuts or scratches clean.**
- **Shower or bath daily and perform frequent mouth care.**
• Do not cut cuticles or ingrown nails. You may wear nail polish, but not fake nails.
• Ask your oncology care team before scheduling dental appointments or procedures.
• Ask your oncology care team before you, or someone you live with has any vaccinations.

Low Red Blood Cell Count (Anemia)
Your red blood cells are responsible for carrying oxygen to the tissues in your body. When the red cell count is low, you may feel tired or weak. You should let your oncology care team know if you experience any shortness of breath, difficulty breathing, or pain in your chest. If the count gets too low, you may receive a blood transfusion.

Low Platelet Count (Thrombocytopenia)
Platelets help your blood clot, so when the count is low you are at a higher risk of bleeding. Let your oncology care team know if you have any excess bruising or bleeding, including nose bleeds, bleeding gums, or blood in your urine or stool. If the platelet count becomes too low, you may receive a transfusion of platelets.

• Do not use a razor (an electric razor is fine).
• Avoid contact sports and activities that can result in injury or bleeding.
• Do not take aspirin (salicylic acid), non-steroidal, anti-inflammatory medications (NSAIDs) such as Motrin/Advil (ibuprofen), Aleve (naproxen), Celebrex (celecoxib), etc. as these can all increase the risk of bleeding. Please consult with your healthcare team regarding the use of these agents and all over-the-counter medications/supplements while on therapy.
• Do not floss or use toothpicks and use a soft-bristle toothbrush to brush your teeth.

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.

Diarrhea
Your oncology care team can recommend medications to relieve diarrhea. Also, try eating low-fiber, bland foods, such as white rice and boiled or baked chicken. Avoid raw fruits, vegetables, whole-grain breads, cereals, and seeds. Soluble fiber is found in some foods and absorbs fluid, which can help relieve diarrhea. Foods high in soluble fiber include applesauce, bananas (ripe), canned fruit, orange sections, boiled potatoes, white rice, products made with white flour, oatmeal, cream of rice, cream of wheat, and farina. Drink 8-10 glasses of non-alcoholic, un-caffeinated fluid a day to prevent dehydration.

Nausea and/or Vomiting
Talk to your oncology care team 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 saltines, or ginger ale to lessen symptoms.

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

Less common, but important side effects can include:

• Secondary Cancers: A secondary cancer is one that develops as a result of cancer treatment for another cancer. This is quite rare, but you should be aware of the risk. In most cases, a secondary cancer related to chemotherapy is a blood cancer (leukemia, lymphoma). This can occur years after treatment. This is most often associated with repeated treatments or high doses. Your provider will monitor your labs closely. Consider having a complete blood count with
differential checked annually by your healthcare provider if you received high-risk therapies.

- **Allergic Reactions**: In some cases, patients can have an allergic reaction to this medication. Signs of a reaction can include shortness of breath or difficulty breathing, chest pain, rash, flushing or itching or a decrease in blood pressure. If you notice any changes in how you feel during the infusion, let your nurse know immediately. The infusion will be slowed or stopped if this occurs. Depending on the severity of your reaction, you may still be able to receive the medication with a pre-medication to prevent a reaction, or if the medication is given at a slower rate.

**Sexual & Reproductive Concerns**

For men, this drug may affect your reproductive system, resulting in sperm production becoming irregular or stopping permanently. You may want to consider sperm banking if you may wish to have a child in the future. Discuss these options with your oncology team.

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 should consult with your healthcare team before breastfeeding while receiving this medication.