Ziv-aflibercept (Zaltrap®)

**Pronounced:** ziv-a-FLIB-er-sept

**Classification:** Anti-angiogenesis

### About Ziv-aflibercept (Zaltrap®)

Ziv-aflibercept is a type of anti-angiogenesis agent. It works by blocking the action of a protein called vascular endothelial growth factor (VEGF), which may prevent the growth of new blood vessels that tumors need to grow. In essence, it kills tumors by cutting off their blood supply.

### How to Take Ziv-aflibercept

Ziv-aflibercept is given by intravenous (IV, into a vein) infusion. The dose you receive is based on your body size and will be determined by your oncology team.

### Possible Side Effects of Ziv-aflibercept

Ziv-aflibercept has the potential to cause several serious side effects. There are some things you can do to manage the more common side effects of ziv-aflibercept. 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:

#### 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.

#### Diarrhea

Diarrhea can be a serious side effect that can lead to dehydration. Notify your care team if you develop diarrhea. Diarrhea is a common side effect of this medication and of irinotecan, which is often given with this medication.

Your oncology 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 on non-alcoholic, un-caffeinated fluid a day to prevent dehydration.

**Liver Toxicity**
This medication can cause liver toxicity, which your oncology care team may monitor for using blood tests called liver function tests. Notify your healthcare provider if you notice yellowing of the skin or eyes, your urine appears dark or brown, or you have pain in your abdomen, as these can be signs of liver toxicity.

**Proteinuria**
This medication can cause an increase in the amounts of protein in your urine. Your healthcare team will monitor your kidney function and protein in your urine throughout treatment with this medication.

**Mouth Ulcers (Sores)**
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.

**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.

**Fatigue**
Fatigue is very common during cancer treatment and is an overwhelming feeling of exhaustion that is not usually relieved by rest. While on cancer treatment, and for a period after, you may need to adjust your schedule to manage fatigue. Plan times to rest during the day and conserve energy for more important activities. Exercise can help combat fatigue; a simple daily walk with a friend can help. Talk to your healthcare team for helpful tips on dealing with this side effect.

**High Blood Pressure**
This medication can cause or make worse high blood pressure (hypertension). Patients should have their blood pressure checked at least every 2 weeks during therapy. Any hypertension should be treated appropriately. If hypertension cannot be controlled, the medication may be stopped. Signs of hypertension to report to your team include: blurry vision, nosebleed, headache, and fatigue.

**Hemorrhage (Bleeding)**
Patients may experience minor bleeding, such as a nosebleed. Serious bleeding has also occurred in patients treated with this medication, including coughing up blood, bleeding into the stomach, blood in stool, vomiting blood, bleeding in the brain (stroke), nosebleeds and blood in the urine. People who have had serious bleeding should not take this medication. These events are uncommon, though if they occur, ziv-afilbercept should be discontinued. While a nosebleed may not seem like much
of a concern, you should notify your healthcare team right away if you develop bleeding of any sort.

**Decrease in Appetite and Weight Loss**

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 oncology care team 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.

**Abdominal (Belly) Pain**

Your healthcare provider can recommend medications and other strategies to help relieve pain. Let your care team know right away if you have new or worsening abdominal pain or diarrhea.

**Less common but important side effects can include:**

- **Fistula development:** A possible, but rare side effect is the development of a fistula, which is an abnormal passage between two body parts (for instance, a hole between the colon and vagina).
- **Posterior Reversible Encephalopathy Syndrome (PRES):** In rare cases, this medication has caused a neurological disorder called posterior reversible encephalopathy syndrome (PRES), also called reversible posterior leukoencephalopathy (RPLS). Symptoms of PRES/RPLS include headache, seizure, lethargy, confusion, blindness, and other visual and neurological disturbances. Report any of these symptoms to your healthcare team immediately.
- **Blood Clots, Stroke, and Heart Attack:** Ziv-aflibercept can increase the risk of blood clots, stroke, and heart attack. If you experience symptoms of these problems, you should contact your healthcare provider immediately or go to an emergency room. Symptoms can include: swelling, redness or pain in an extremity, chest pain or pressure, pain in your arm, back, neck or jaw, shortness of breath, numbness or weakness on one side of the body, trouble talking, confusion, or mental status changes.
- **Wound Healing:** This medication can lead to slower or incomplete wound healing, such as a surgical wound not healing or staying closed. Be sure to inform the team performing the surgical procedure that you are taking ziv-aflibercept. You should also inform your oncology team that a surgical procedure is planned. It is recommended that the medication be discontinued four weeks prior to any surgery. Treatment with ziv-aflibercept should not resume for at least 4 weeks after surgery. If you have a surgical wound that has not healed or begins to have signs of infection (redness, swelling, warmth), report this to your healthcare team.
- **GI Bleed & Tear:** This medication can cause bleeding in the bowel or a tear in the intestinal wall (called a perforation). Signs of these problems include: blood in the stool or black/tar-like stools, vomiting blood, vomit that looks like coffee grounds, fever, severe pain in the abdomen (belly), or new abdominal swelling. If you experience any of these, contact your healthcare provider immediately or go to the emergency room.

**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 and for at least 3 months after 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 this medication and for at least 1 month after treatment.
medication that you have been prescribed, you should consult your health care provider.