Patient Education

Everolimus (eh-vuh-role-uh-muss)

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<th>Other Names</th>
<th>Afinitor®</th>
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**How is Everolimus Administered?**

Everolimus is taken by mouth, as a tablet. Take it at the same time each day, with a whole glass of water. Swallow the tablet whole - do not chew or crush the tablet. Do not touch tablets that have broken or crumbled. Everolimus also comes as a tablet meant to suspend in water. *Do not take both types of tablets – take one type or the other.*

**Why is Everolimus Used?**

This drug is used to treat advanced renal cell (kidney), breast cancer that has spread to other parts of the body (metastasis), advanced neuroendocrine tumors in the pancreas (PNET), and brain tumors called SEGAs (subependymal giant cell astrocytomas).

**How Does Everolimus Work?**

Everolimus is a type of targeted therapy, rather than traditional chemotherapy. Specifically, it is an mTOR (mammalian target for rapamycin) inhibitor.

Cancer is a group of diseases in which abnormal cells multiply without control. Traditional chemotherapy agents identify cancer cells by their rapid rate of multiplication-- and then attack those cells. Unfortunately, it also attacks normal cells that multiply quickly. Targeted therapy identifies other differences between normal cells and cancer cells, and then uses that difference to attack the cancer cells, sparing the normal cells.

As an mTOR inhibitor, everolimus interferes with the master switch that controls cancer cell growth and reproduction.

Everolimus also works by reducing the levels of some growth factors that the tumor needs to create new blood vessels. By blocking the creation of these new blood vessels *(a process called antiangiogenesis)*, the tumor cannot get the oxygen and nutrients it needs to grow.

**What Should I Tell My Doctor Before I Begin Receiving Everolimus?**

Tell your doctor if you:
- are allergic to everolimus, sirolimus, or temsirolimus
- have or have ever had diabetes or high blood sugar, high cholesterol or triglycerides, liver disease, or any condition that prevents you from normally digesting foods containing sugar, starch, or dairy products.
- may have any type of infection now or have had hepatitis B
- are pregnant or breastfeeding

*This drug may interact with other medications or cause harmful side effects. Tell your doctor and pharmacist about any prescription or over-the-counter medications, vitamins, herbal or diet supplements that you are taking.*
What Are Some Possible Side Effects I May Experience?

- Low blood counts: decreased red blood cells, white blood cells, and/or platelets that may result in a higher risk for anemia (fatigue), infection, and bleeding problems
- Mouth sores or irritation, changes in your sense of taste, dry mouth
- Diarrhea, constipation
- Infection, fever
- Weakness, fatigue, sleep problems
- Cough, shortness of breath, and/or lung problems
- Abnormal blood test results (Liver enzymes, cholesterol, triglycerides, and creatinine levels may be high and phosphorus level may be low.)
- Back, arm, or leg pain; muscle cramps; swelling in arms or legs
- Loss of appetite, upset stomach, nausea, weight loss, vomiting
- Dry or itchy skin, rash, acne, nail problems
- Headache, dizziness
- Nosebleed
- Irregular or heavy menstrual periods in women
- Erectile dysfunction in men
- Anxiety, changes in behavior

How Can I Manage These Side Effects?

- Wash your hands thoroughly, and often. Talk to your doctor before you have any vaccinations.
- If your doctor says you are at risk for infection, stay away from large crowds or people with a cold, flu, or other infections.
- To help prevent bleeding problems, be careful when handling sharp objects. Stay away from rough sports and situations where you could be bruised or injured. Use an electric razor. Be careful when using a toothbrush or dental floss (Your doctor may recommend other ways to clean your teeth and gums).
- Mouth care is very important. To minimize mouth problems, rinse your mouth with a mixture of ½ tsp of baking soda in 8 oz of water after every meal and at bedtime. Brush your teeth and gums often with a soft toothbrush. (Soften it further by running it under warm water). Avoid smoking, alcohol, and mouthwash that contain alcohol.
- Use saliva substitute and apply lip moisturizer (chapstick) if needed. Suck on hard candies.
- If your mouth is irritated, use topical or local agents such as Orajel or Zilactin-B, and apply generously. You can use equal parts of xylcaine viscous solution, Zovirax® (alcohol-free), and Maalox® (or Mylanta®). Swish the mixture around in your mouth and then spit it out. You can use this rinse every 2-4 hours as needed.
- You may burn more easily, so avoid exposure to direct sunlight. Use sunscreen with SPF of 30 or higher. Wear protective clothing-wide-brimmed hats, long-sleeved shirts, and pants. Keep your neck, chest, and back covered.
- Talk to your doctor before using any skin creams/lotions for a rash.
• Drink at least 2-3 quarts of fluid (especially water) every 24 hours, unless your doctor tells you otherwise.
• Ask your doctor about medication to help prevent or lessen headache, nausea, or diarrhea.

When Should I Call the Doctor?

Call your doctor immediately if you experience:
• any sign of infection: fever of 100.5°F (38°C) or higher, chills, sore throat, painful urination; ear pain, sinus pressure, or redness, pain, and swelling at the site of any break in the skin or injury.
• any sign of an allergic reaction: itching or hives, swelling in your face or hands, swelling or tingling in your mouth or throat, chest tightness, trouble breathing, dizziness, or palpitations
• unusual bruising or bleeding: bleeding lasts more than 10-15 minutes or that causes dizziness; black or bloody stools; vomit that is bloody or that looks like coffee grounds; blood in your urine or phlegm/mucus, or superficial bleeding into the skin that appears as a rash of pinpoint-sized reddish-purple spots (petechiae)
• extreme thirst or hunger

Call Your doctor as soon as possible if you have:
• nausea or vomiting that does not respond to prescribed medication or that prevents you from eating or drinking
• diarrhea (4-6 episodes) or vomiting more than 4 times in 24-hours
• extreme fatigue (unable to care for yourself)
• yellowing of your skin or eyes

What Else Should I Know About Everolimus?

• This medication comes in individual blister packs. Do not open a blister pack until you are ready to take that tablet.
• Cuts or other wounds may heal more slowly while you are taking everolimus.
• Do not become pregnant or father a child while on everolimus. This drug may be harmful to the fetus. Use effective methods of birth control during your treatment and for 2 months after treatment has ended. If you or your partner becomes pregnant, call your doctor immediately.
• Tell your doctor if you take herbal products, especially St. John's Wort.
• If you are having surgery, including dental surgery, tell the doctor or dentist that you are receiving everolimus.
• Do not eat star fruit, Seville oranges, or grapefruits or drink grapefruit juice while taking this medication.
• Do not breastfeed while taking everolimus.
• You may have altered lab (blood) tests from this medication. You must keep all your doctor and lab appointments.
• If you would like more information about everolimus, talk to your doctor.