Atezolizumab (Tecentriq®)

Pronounced: a-te-zoe-LIZ-ue-mab

Classification: monoclonal antibody

About Atezolizumab (Tecentriq®)

The immune system works by creating antibodies, which are proteins that attach to antigens found on the surface of a cell. The antibody “calls” the immune system to attack the cell it is attached to, resulting in the immune system killing the cell. Monoclonal antibodies are created in a lab to attach to the antigens found on specific types of cancer cells. These antibodies can work in different ways, including stimulating the immune system to kill the cell, blocking cell growth or other functions necessary for cell growth.

Atezolizumab is a type of monoclonal antibody therapy, which works to stimulate the immune system to destroy cancer cells. T-cells are a type of white blood cell that are very important to the normal functioning of the immune system. Atezolizumab works as a form of immunotherapy and blocks the activity of programmed death ligand 1 (PDL-1), a molecule found on T cells that suppresses immune activity. By blocking PDL-1, T-cells function better and the immune response is stimulated to find and kill cancer cells.

How to Take Atezolizumab

Atezolizumab is given intravenously (directly into a vein). The dose may be based on your weight. How often you receive the medication depends on the type of cancer being treated and will be determined by your provider.

Make sure your care team is aware of all medications (including prescription and over-the-counter), supplements, and vitamins you are taking. Steroids should be avoided while on immunotherapy, unless directed by your care team.

Tell your care team about all your medical conditions, including those that are autoimmune in nature (Crohn’s disease, lupus, rheumatoid arthritis, etc.) as these can get worse with immunotherapy. You should also notify your provider if you have had or plan on having an allogeneic stem cell transplant as this medication can worsen a side effect of the transplant called graft-versus-host disease.

Possible Side Effects

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

Immune Reactions

This medication stimulates your immune system. Your immune system can attack normal organs and tissues in your body, leading to serious or life-threatening complications. It is important to notify your healthcare provider right away if you develop any of the following symptoms:

- **Lung problems** (pneumonitis, inflammation of the lung): New or worsening cough, shortness of breath, trouble breathing, or chest pain.
- **Liver problems** (hepatitis, inflammation of the liver): Yellowing of the skin or eyes, your urine appears dark or brown, pain in your abdomen, bleeding or bruising more easily than normal, or severe nausea and vomiting.
- **Diarrhea / Intestinal problems:** (Colitis, inflammation of the bowel) Abdominal pain, diarrhea, cramping, mucus or blood in the stool, dark or tar-like stools, fever. Diarrhea means different things to different people. Any increase in your normal bowel patterns can be defined as diarrhea and should be reported to your healthcare team.

- **Hormone abnormalities:** Immune reactions can affect the pituitary, thyroid, pancreas, and adrenal glands, resulting in inflammation of these glands, which can affect their production of certain hormones. Some hormone levels can be monitored with blood work. It is important that you report any changes in how you are feeling to your care team. Symptoms of these hormonal changes can include: headaches, nausea, vomiting, constipation, rapid heart rate, increased sweating, extreme fatigue, weakness, changes in your voice, changes in memory and concentration, increased hunger or thirst, increased urination, weight gain, hair loss, dizziness, feeling cold all the time, and changes in mood or behavior (including irritability, forgetfulness and decreased sex drive).

- **Brain and/or nerve problems:** Report any headache, drooping of eyelids, double vision, trouble swallowing, weakness of arms, legs or face, or numbness or tingling in the hands or feet to your healthcare team.

- **Eye problems:** Report any changes in vision, blurry or double vision, and eye pain or redness.

- **Pancreas problems:** Bloating, indigestion, fatty stools, loss of appetite, sweating, abdominal pain, and weight loss can all be symptoms of pancreatitis (inflammation of the pancreas). Notify your care provider if you have any of these symptoms.

- **Heart problems:** Inflammation in the heart muscle can happen in rare cases. If you develop any of these symptoms, report them to your provider right away: chest pain, shortness of breath, trouble breathing when lying down or waking up gasping for air, heart palpitations (feeling like your heart is racing), swelling in your feet or legs, lightheadedness or fainting.

**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. The most common infection related to this medication is a urinary tract infection. Symptoms of urinary tract infection include frequency, urgency, and burning with urination.

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 doctor or nurse before scheduling dental appointments or procedures.
- Ask your doctor or nurse before you, or someone you live with, has any vaccinations.

**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.

**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.

**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.

**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 5 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 taking this medication or during the 5 months after your last dose.

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