Anti-TNF Agents

Anti-TNF Agents include infliximab, adalimumab, certolizumab and golimumab. (The brand names are Remicade, Humira, Cimzia and Simponi). This handout will describe anti-TNF agents and their side effects.

WHAT ARE ANTI-TNF AGENTS, AND HOW DO THEY WORK?
Anti-TNF medications are antibodies that block an inflammatory hormone called tumor necrosis factor (TNF). TNF is made by white blood cells, and it causes inflammation. These medicines can induce and maintain clinical remission in patients that have had a poor response to other IBD medicine. Anti-TNF agents are also used to treat people with Crohn’s disease who have fistulas.

WHAT DO I NEED TO KNOW ABOUT TAKING ANTI-TNF AGENTS?
- Anti-TNF medicines work by blocking inflammation in your body. However, they can also lower your ability to fight infections.
- These medicines can make you more prone to getting infections or make the infections you already have worse.
- Call your doctor right away if you think you have an infection.
- You should not receive live viral vaccines when you are on anti-TNF medicine.

HOW DO I TAKE ANTI-TNF MEDICINE?

Infliximab (Remicade)
- Infliximab (Remicade) is given by IV by a healthcare professional. When you first start taking infliximab, you will get the first dose and additional doses 2 and 6 weeks after the first dose.
- After the first three doses, infliximab is given every 8 weeks by IV infusion. The infusion typically lasts 2 to 3 hours and is done by an outpatient or hospital-based office/infusion center.
- Your doctor will monitor your response to infliximab and may change your dose or time between doses. In certain cases, checking the level of infliximab in your blood can be helpful if infliximab stops working for you.

Adalimumab (Humira)
- After a first dose, adalimumab (Humira) is given by skin injection every 2 weeks.
- The first two doses of adalimumab are usually larger than what your regular dose will be.
- The dose can be increased to every week if the medicine is not effective.
- Checking the levels of adalimumab in the blood can be helpful if the medicine stops working.

Certolizumab (Cimzia)
- Certolizumab (Cimzia) is given by skin injection once every 4 weeks. Parents and children often learn how to give adalimumab and certolizumab shots and can give it to themselves at home.
WHAT ARE THE SIDE EFFECTS OF ANTI-TNF AGENTS?

Infections

- People who take anti-TNF medicine are at increased risk of infection. Some infections can be serious. For people that have been infected/exposed to tuberculosis, you can get very sick. Your gastroenterologist will check you for Tb. If the test is positive, you will need to be treated for Tb. Tell your doctor if you develop fevers while taking anti-TNF medicine.
- You may also be at increased risk for simple upper respiratory infections and sinus infections.

Allergic reactions

- Some people may have anaphylaxis to anti-TNF medicine. This may happen during or immediately after an infliximab infusion or shortly after adalimumab/certolizumab injection. Symptoms include hives, difficulty breathing and chest pain. Call your doctor immediately if you have these symptoms.
- Some people can have a “delayed reaction” (3 to 12 days after a treatment). This is different than an anaphylactic reaction. Symptoms may include fever, rash, headache and muscle/joint pain. Call your doctor if you have these symptoms.
- Other people may develop a lupus-like reaction (chest discomfort, shortness of breath, joint pain or a rash on the cheeks that gets worse in the sun). Call your doctor if you develop any of these symptoms.

Injection site reactions

People receiving adalimumab or certolizumab can develop a localized skin reaction where they received an injection. It is recommended to rotate the site of the injection.

Nervous system disorders

There have been rare cases where people taking anti-TNF medicines have developed visual changes, arm/leg weakness, and numbing or tingling.

Cancer

- There may be an increased risk of cancer in people treated with anti-TNF medicines (including non-melanoma skin cancer.)
- Hepatosplenic T-cell lymphoma is an extremely rare and aggressive form of lymphoma that has been reported in a small number of people with IBD (mostly teenagers and young adults) compared to tens of thousands of people that have received infliximab. Almost all of these people are male and have received azathioprine/6-MP AND an anti-TNF medicine (although not necessarily at the same time). It usually causes a large liver and spleen, low platelet counts, fever, weight loss and night sweats. Many of these patients died from this lymphoma. It is unclear if the cause is due to anti-TNF medicine, 6-MP/azathioprine, IBD itself, or a combination.

Liver problems

Anti-TNF medicines can sometimes affect the liver and cause dark-brown urine, right-sided belly pain, fever and fatigue. Call your doctor immediately if you have these symptoms.

Bone marrow suppression

Some people may not make enough white blood cells or platelets while taking anti-TNF medicines.