



PATIENT FACT SHEET

TNF Inhibitors



WHAT IS IT?

TNF inhibitors are used worldwide to treat inflammatory conditions such as rheumatoid arthritis (RA), psoriatic arthritis, juvenile arthritis, inflammatory bowel disease (Crohn's and ulcerative colitis), ankylosing spondylitis and psoriasis. They reduce inflammation and can stop disease progression by targeting an inflammation causing substance called Tumor Necrosis Factor (TNF). In healthy individuals, excess TNF in the blood is blocked naturally, but in those who have rheumatic conditions, higher levels of TNF in the blood can lead to more inflammation

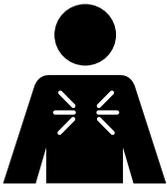
and persistent symptoms. TNF inhibitors can control inflammation in the joints, gastrointestinal tract and skin. There are six different TNF inhibitors that have been approved by the FDA for the treatment of rheumatic diseases. To decrease side effects and costs, most patients with mild or moderate disease are treated with methotrexate before adding or switching to a TNF inhibitor. These agents can be used by themselves or in combination with other medications such as prednisone, methotrexate, hydroxychloroquine, leflunomide or sulfasalazine.



HOW TO TAKE IT

TNF inhibitors may be given by injection under the skin or by infusion into the vein. There are pamphlets and videos that can teach you how to give yourself an injection under the skin. Physicians, nurses, and pharmacists can also teach you how to give the injection. The medicine can be injected into the skin of the thigh or abdomen. The site of injection should be rotated so

the same site is not used multiple times. Infliximab and golimumab infusions are administered at a doctor's office or an infusion center. These treatments take up to 4 hours. The time that it takes for the medication to have an effect may vary by patient. Most patients have reported a change in their symptoms after 2 or 3 doses, but it usually takes 3 months to see the full benefit.



SIDE EFFECTS

The most common side effect seen with the injectable drugs are skin reactions, commonly referred to as "injection site reactions." These reactions can last up to a week. Infliximab has been associated with a severe allergic reaction with swelling of the lips, difficulty breathing and low blood pressure. The most significant side effect is an increased risk for all types of infections, including tuberculosis (TB) and fungal infections. Some of these infections may be severe. Patients should be tested for TB

before starting therapy, because TB infection can worsen. The usual way of testing is with a skin test, but a blood test is also available. Long-term use of TNF inhibitors may increase the risk of cancers such as lymphoma and skin cancer. There are rare neurologic complications as well. People who have a history of multiple sclerosis should not take these medications. People with significant heart failure should not use a TNF inhibitor, because their heart disease could worsen.



TELL YOUR DOCTOR

TNF inhibitors are usually held if the patient has high fever or is being treated with antibiotics for an infection. The medication can be restarted once the infection goes away. Patients should talk to their doctor before getting any vaccinations while using an anti-TNF drug. Some vaccinations are safe, but live vaccines should be avoided. These medications are expensive

(more than \$10,000 per year), but they are covered by most health care insurance plans. Copay amounts vary widely. Ask your doctor about prescription assistance plans that can help you to get the medication at a lower price or free of charge. Refer to the package insert for more information.

Written June 2018 by Kelly Weselman, MD and reviewed by the American College of Rheumatology Communications and Marketing Committee. This information is provided for general education only. Individuals should consult a qualified health care provider for professional medical advice, diagnosis and treatment of a medical or health condition.