

TNF ANTAGONISTS

What are Biologics?

- Biologics are a new class of DMARD (Disease Modifying Anti-Rheumatic Drug) which have been available for over 10 years now.
- Biologics are most commonly used in the treatment of inflammatory arthritis including rheumatoid arthritis, psoriatic arthritis & ankylosing spondylitis. However, they have also been used to try to treat a variety of other autoimmune rheumatic conditions.

What is the typical dose for a TNF Blocker?

- Adalimumab (Humira) – It is given as a 40mg injection under the skin every second week
- Certolizumab (Cimzia) – It is given as a 200mg injection under the skin on average every second week
- Etanercept (Enbrel) – It is given as a 50mg injection under the skin once per week
- Etanercept (Erelzi) – A biosimilar to the originator Enbrel, it is also given as a 50mg injection under the skin once per week
- Etanercept (Brenzys) – A biosimilar to the originator Enbrel, it is also given as a 50mg injection under the skin once per week
- Golimumab (Simponi) – It is given as 50mg injection under the skin one per month or as an intravenous treatment on average every 8 weeks
- Infliximab (Remicade) – It is given as an intravenous treatment on average every 8 weeks
- Infliximab (Inflectra) – A biosimilar to the originator Remicade, it is also given as an intravenous treatment on average every 8 weeks

How do TNF Blockers work?

- The Biologics being discussed here are all in a class called TNF antagonists. TNF, or tumour necrosis factor (named as it was discovered in cancer research but is a normal part of the immune system) is a specific molecule which helps drive inflammatory arthritis. By blocking TNF, we can modulate the immune system's response which decreases inflammation, reduces pain, and improves function.

How soon will I feel the effect of TNF Blockers?

- While some patients feel it works within hours, it can take a few weeks to start to work. We usually look for improvement by 3 months.

Which TNF Blocker works the best?

- Research so far has not reliably found a significant difference between the different Biologics. They appear to work equally as well. For any particular patient, it is possible that one may work better than another, but it is not predictable.

Which TNF Blocker is the safest?

- Again, they are on the whole equally as safe. Please see below for potential side effects.

If I start a TNF Blocker, can I stop all my other DMARDs?

- Most rheumatologists will suggest you continue with at least methotrexate, assuming you have not had side effects, in addition to a Biologic. Studies have shown the Biologics work significantly better when combined with methotrexate.
- Keep in mind: In most instances, your rheumatologist has recommended you start a Biologic because your inflammatory arthritis has not been well controlled. It is important to try to control your disease as best as possible first, which may mean continuing all DMARDs for some time, before trying to decrease them.

What are the possible side effects of TNF Blockers?

Side Effect

Ways to Reduce Side Effects

- Local Injection Reactions (red, painful or itchy skin)
- Intravenous Infusion Reactions

- Rotate the area where you inject.
- If severe, the medication is stopped. However, certain medications can be given to prevent similar reactions from re-occurring.

Side Effect

Ways to Reduce Side Effects

- TNF Blockers can increase your risk of developing severe infections
- Lung infections are particularly more common

- Stop your TNF Blockers any time you have a fever. It is usually safe to resume it once you are better.
- Fevers and other severe illness should not be ignored and discussed with your doctor.

- TNF Blockers can increase your risk of developing or reactivating Tuberculosis.

- Prior to starting a TNF Blockers, your rheumatologist will ask you to do a TB skin test and get a chest x-ray to look for signs of previous TB exposure. If positive for previous TB exposure, you may require anti-TB medications before safely starting a TNF Blockers.

- Exacerbate Congestive Heart Failure

- TNF Blockers should be avoided in most patients with heart failure.

- Rarely, TNF Blockers may cause the development of nervous system problems, such as multiple sclerosis.

- Let your doctor know if you or an immediate family member already have a known nervous system problem.

- TNF Blockers may cause a small increased risk for certain types of cancer.

- Fortunately this is rare and in fact, the association is not entirely clear. Let your doctor know if you are undergoing or have undergone treatment for cancer, particularly lymphoma.

- Viral Hepatitis

- There may be some risks associated with taking TNF Blockers and certain type of hepatitis. Let your doctor know if you have ever been diagnosed with hepatitis.

Side Effect

Ways to Reduce Side Effects

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- Medication Interactions
 - Live vaccines should be avoided while on a Biologic.
 - Discuss vaccinations with your rheumatologist.
 - Live vaccines should be given prior to starting a Biologic.

What should I do if I miss a dose?

- If you miss your dose, you can take it as soon as you remember safely. Then, resume your normal routine. As long as this does not happen regularly, you will likely not feel any ill effects.

How can I safely stop TNF Blockers?

- It is safe to just stop all TNF Blockers; you do not need to slowly reduce the dose. However, keep in mind, if you were gaining any benefit, it will usually take a few weeks to lose it.

For more information about TNF Blockers, or for questions that are specific to your situation, always consult your physician.