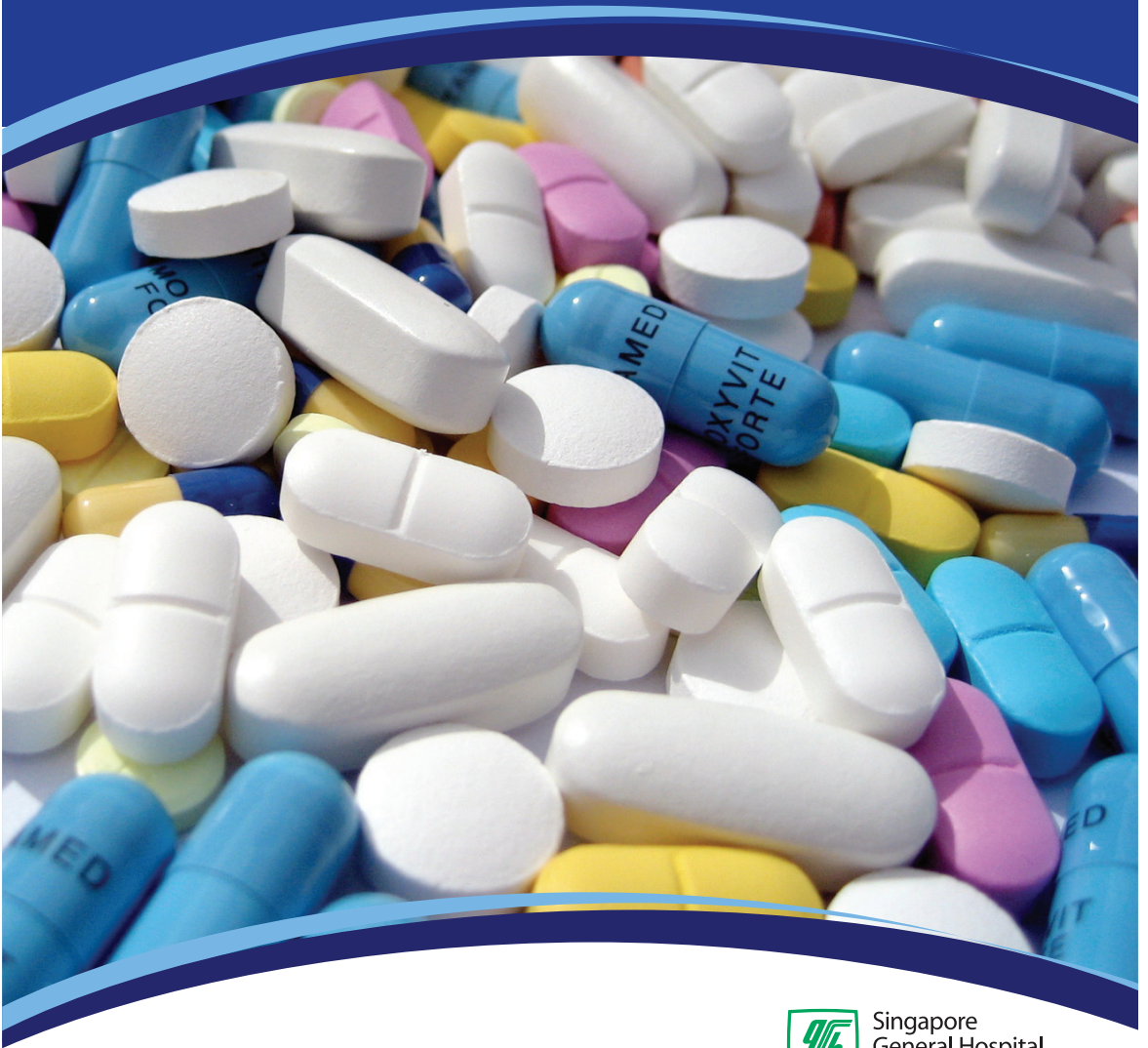


Anti-Tumor Necrosis Factor (Anti-TNF)



Singapore
General Hospital
SingHealth

About your medicine

- Anti-tumor necrosis factor (anti-TNF) is a type of medicine called biologic agent that targets substance called TNF.
- When TNF is present in excessive concentrations, it can cause destructive inflammatory process.
- Anti-TNF acts by blocking the effect of TNF. Thus, reduces inflammation and stop disease progression.
- It is used when moderate to severe disorders do not respond to one or more of the traditional disease modifying anti-rheumatic drugs (DMARDs) such as methotrexate.
- There are five anti-TNF drugs available including infliximab, adalimumab, etanercept, certolizumab and golimumab.

How is the medicine given?

- It may be given by injection under the skin at home (adalimumab, etanercept, certolizumab and golimumab), or by infusion over 2 to 4 hours in the hospital (infliximab).
- It can be injected into the abdomen or thigh.
- Starting, maintenance dose and time to effect:

Drug	Usual Dosing Regimen	Time-to-Effect
Infliximab	Initial: 3-5 mg/kg (Week 0, 2, 6) Maintain: 8 weekly	2-3 weeks
Adalimumab	40mg every other week	2-3 weeks
Etanercept	50mg once a week	1-2 weeks
Certolizumab	Initial: 400mg (Week 0, 2, 4) Maintain: 200mg every other week	1-2 weeks
Golimumab	50mg once a month	1-2 weeks

What should I do when I am injecting Anti-TNF?

- Get tested for tuberculosis before starting anti-TNF therapy.
- Get tested for Hepatitis B and C. Hepatitis B and C infection may worsen during the anti-TNF therapy.
- Monitor your heart condition closely before and after the treatment as anti-TNF can worsen the symptoms.
- Come back to the hospital for regular blood tests as instructed by your doctor. This is important as adverse effects can happen at any time during the course of treatment, and some side effects may not show symptoms.
- Move the site for each injection.
- Avoid overcrowded places.

What should I do if I forget a dose?

- If you have missed a dose, take it as soon as you remember.
- If it is almost time for your next dose, skip the missed dose and continue with your regular dosing schedule.
- Do not double the dose to make up for the missed dose.

Do I skip dose if I am sick?

- Seek prompt advice from your doctor when you develop any of the serious symptoms described above or is being treated with antibiotics for an infection.
- Your doctor will decide whether to stop anti-TNF on a case-by-case basis.

What are the possible side effects of the medicine?

- Common side effects:
 - Infection (colds, sinusitis, urinary tract infections and skin infections)
 - Injection site reactions (bleeding, bruising, redness, itching, pain and swelling)
 - Infusion reactions of infliximab: Flushing, chills, chest tightness, shortness of breath, hypotension or hypertension (pre-medication may be given to prevent infusion reactions)
 - Headache
 - Rash
- Uncommon side effects:
 - Severe infections (pneumonia, joint infection, activation of tuberculosis)
 - Low blood platelet count
 - Localised swelling of the skin or hives
 - Lung inflammation
- Rare side effects:
 - Combined low platelet, red and white blood cell count
 - Severe muscle weakness
 - Seizures
- Long-term use of anti-TNF may increase the risk of lymphoma and other cancers. You may be at higher risk if you are also taking immunosuppressant such as methotrexate and azathioprine.

When do I seek immediate medical attention?

- Allergic reactions: Rash, hives, blisters, wheezing, chest tightness, trouble in breathing, swelling of mouth, face, lips, tongue
- High fever (exceeds 38°C), chills and very bad sore throat
- Chest pain or pressure
- Shortness of breath or swelling of feet or ankles
- Unusual bruising or bleeding
- Jaundice (yellowing of skin or whites of eyes)
- Dark urine, stomach pain

Can I take other medicines or supplements?

- DMARDs such as methotrexate, hydroxychloroquine, sulfasalazine or leflunomide can be used in combination with anti-TNF.
- Do not take any supplements, alternative or herbal medicines without informing your doctor or pharmacist.
- You should avoid live vaccines such as live polio, yellow fever, rubella (German measles), MMR (measles, mumps and rubella), typhoid and BCG (tuberculosis).
- Killed vaccines for pneumococcal, influenza, hepatitis B and human papillomavirus should be given to patients receiving anti-TNF therapy.

What special dietary instructions should I follow?

- Do not consume raw or undercooked food.

Can I start a family or breastfeed?

- The information about the safety of anti-TNF in pregnancy is still fairly limited therefore, it is not recommended for pregnant women.
- If you are planning to have a child, it is important to discuss with your doctor before taking this drug.
- Recent studies have suggested infliximab is usually not detected in breast milk and absorption is unlikely in infants. However, in view of limited information, it is advisable not to breastfeed while receiving infliximab.

How should I store the medicine?

- Keep in a refrigerator. Do not freeze. Protect from light.
- Keep all medicines out of reach of children.
- After injection, dispose needles in a sharp disposal box. When the box is full, return it to pharmacy or clinic.

In Summary

What you need to know about anti-TNF?

- Follow the scheduled interval when injecting anti-TNF at home.
- Infliximab infusion is administered in hospital at scheduled interval.
- Always come for your blood tests on the scheduled date.
- Beware of the side effects and know when to seek immediate medical attention.
- Do not take over-the-counter medicines, supplements or herbal medicines without checking with your doctor/pharmacist/advanced practiced nurse first.
- For patients who intend to start a family, consult your doctor before you start the treatment.
- If you have any questions about the treatment, please discuss it with your doctor/advanced practice nurse at 65762418 or Pharmacist at 63265077.

Produced by
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