



Adalimumab (Humira) in IBD **Patient Information Leaflet**

General Information

Adalimumab (also known as Humira) has been licensed by The National Institute for Clinical Excellence (NICE) for the treatment of severe Crohn's disease. It has recently failed to get NICE clearance for use in Ulcerative Colitis in the UK, and (unlike Infliximab) it is also not licenced for treating Crohn's fistulae of paediatric patients.

What is it?

Adalimumab is a monoclonal antibody produced by a special technique which uses purely humanised DNA.

How does it work?

Adalimumab is an antibody that targets a protein in the body called Tumour Necrosis Factor Alpha (TNF α). You make TNF α automatically as part of the immune system to help fight against infection. Part of the problem with IBD is that the inflammatory cascade seems to continue long after the trigger has been cleared and seems to escape regulation. In these cases Infliximab helps bind to the TNF α , "mopping it up" and therefore breaking the perpetual inflammatory cascade. This in turn allows the bowel lining to heal, relieving symptoms and preventing secondary complications.

How is Adalimumab given?

It is given as an injection that you do yourself, at home. It must be stored in the fridge. The injection goes into your skin usually on your thighs or abdomen. The injection comes in ready made syringes with tiny needles, unlike the ones you see in hospitals. The drug gets delivered to your home address by a specific delivery company. We have an arrangement with a company currently called Hospital At Home. They will arrange a date and time for your delivery with you. The delivery will include a set number of pre-loaded syringes containing the Adalimumab and a sharps box for disposal of the used syringes afterwards.

A nurse from this company will arrange an appointment to come to your house to teach you how to inject your self, how to dispose of the syringe, how to request new supplies. This is not done in the hospital. The nurse may be able to arrange a follow up appointment to check that you are happy with injecting yourself at home. If there are any problems with this service please let your IBD nurse know as soon as possible.

The injection takes about 10 seconds to do. You do not inject into a bruise, reddened skin, or into any hard lumps under the skin surface. Each time you inject you should make sure that the new site is at least 3 cm away from the previous injection site. The Hospital at Home nurse will ensure that you are able to inject properly.

Normal dose

A typical induction course

Initially involves taking	160mg = 4 injections
2 weeks later	80mg = 2 injections
2 weeks later	40mg = 1 injection

Maintenance therapy is provided by giving 40mg = 1 injection every 2 weeks, for 1 year. This will then need to be reviewed with a view to stopping it if possible. If the drug stops working you will either need to double the dose, increase the frequency to every week, or stop. This will be monitored by the IBD team at the hospital. You will still need to be seen in clinic and have surveillance colonoscopy as required.

How long does it take to work?

Most people start to feel better after 2-6 weeks.

How much does it cost?

For you it should cost nothing (except for the parking, and time off from work). In general, however, it costs the PCT (Primary Care Trust) approximately £250-400 per infusion (approximately £10,000 per year). It is because it is so costly that the PCT (unfortunately) like to restrict its use and demand (rightly so) the close monitoring of its use.

How long will I need to take it?

If it proves successful, then the PCT allow us money to fund maintenance therapy at 40mg every 2 weeks (provided we can prove its working). If it is not working then there would be no benefit in continuing the injections.

How effective is Adalimumab?

Studies have shown that it can induce remission in some people with Crohn's disease. It is sometimes used if patients develop an antibody tolerance to Infliximab or in those who are difficult to cannulate and would prefer not to come in to hospitals.

Research studies (CLASSIC I+II, GAIN, CHARM, EXTEND) support the clinical effectiveness of Adalimumab, although the results do not appear to be quite as effective as Infliximab;-

- 60% of patients have some improvement in their symptoms
- 35% achieve longterm maintenance and mucosal healing
- beneficial in 22% that had failed to settle on Infliximab

How safe is Adalimumab?

Adalimumab has been used to treat 250,000 people around the world with rheumatoid arthritis, psoriatic arthritis, ankylosing spondylitis, and Crohn's disease, largely without any major incidents.

What are the risks of potential side effects?

- 15% can develop injection site problems
- 13% can develop drug side effects (Leuven - Safety Data).
- Of these 30% can get serous side effects (actual risk 4%)
 - Infections (actual risk 6%)
 - Skin rashes (reversible psoriatic reaction) (actual risk 20%)
 - Autoimmune / vasculitis (actual risk 0.6%)

What about in pregnancy and breast feeding?

It appears to be safe in pregnancy, and medical experts agree that Adalimumab does not pass the placenta barrier until the third trimester (about week 26 of a pregnancy). We would therefore suggest trying to stop it in the 6th month of pregnancy (3rd trimester), to prevent there being any possible carry over effect on the development of the babies immune system. However, research would suggest that it is better for the baby to keep the mother healthy during her pregnancy, whilst avoiding IBD flare ups. There are generally more problems with a pregnancy if the mother has unstable IBD during gestation.

The baby should NOT have live vaccines until it is 6 months old.

Is breastfeeding safe?

Adalimumab is considered safe to take whilst breastfeeding. It is a large protein so unlikely to pass into the breast milk, and even if it was ingested by your baby it would most likely be broken down and digested instantly. However the long term effects of Adalimumab on a baby's immune system, if transmitted through the placental blood stream, are not yet known.

Is there a Cancer risks?

The Leuven review found did not find any major increase in the prevalence of cancer. Caution is, however, still advised if you have already suffered from a cancer previously.

There does, however, appear to be a small increased risk of lymphoma (similar to that seen with Infliximab). During clinical studies looking at the biological therapies, it was suggested that there was an increased risk of lymphoma, although this is only just slightly greater than that seen in the general population.

The risks of Lymphoma (an abnormal over production of white blood cells);-

2 in 10,000 - within the general population

4 in 10,000 - if you have Crohn's disease

6 in 10,000 - if you have Crohn's disease and are taking a biological

As you can see the use of Adalimumab increases the risk of Lymphoma by 50%, but the real increase in risk is marginal. In order to provide you with a visible pictorial way of assessing these risks I have attached a graphical form attached at the end of this information sheet (provided by Abbott).

Is there an increased risk of picking up infections?

There does indeed appear to be an increased risk of picking up infections. There have been reports of serious infections on Adalimumab, including Tuberculosis (TB). It is important that your immune status is checked before commence a biological therapy (as suggested by the European Crohn's and Colitis Organisation). We are now expected to test all IBD patients at diagnosis for a range of infections including;-

- TB (T spot test and CXR)
- Hepatitis
- HIV
- Chicken Pox virus
- Epstein Barr virus
- Human papilloma virus (in young women)

If you develop an infection, have a temperature or are taking antibiotics on the run up to your next Adalimumab injection contact us via Hospital-at-Home, know your IBD nurse and the St Mary's Day Unit nurses know. The Adalimumab injection may need to be delayed until you feel better.

If it is found that you have TB you will need to be checked by the respiratory team before starting Adalimumab. If they prescribe treatment for TB then the Adalimumab will be delayed for 3 months.

If you have a fistula you may need an MRI screen first to check that there is no associated abscess collection. If there is an abscess this will need to be treated (+/- drained) and dealt with before starting Adalimumab.

Pre-screening also includes checking for a history of heart disease as Adalimumab could aggravate the situation. You would need very close cardiac monitoring if this was the case.

If you have a history of neurological problems – such as multiple sclerosis or Guillain-Barre syndrome then the risks and benefits need to be carefully considered.

Vaccinations when on Adalimumab

You should avoid **LIVE** vaccines such as polio, rubella (German Measles), yellow fever, MMR (Measles, Mumps and Rubella) and the BCG (TB). The **INACTIVE** polio can be given. Flu vaccines such as swine flu and pneumovax are safe to have as they are not live vaccines.

Alcohol and Adalimumab

Alcohol does not appear to have any effect on Adalimumab. However it is better to avoid drinking excessive amounts of alcohol. The current recommendation for the Department of Health is 2-3 units a day for a woman and 3-4 units a day for a man.

Possible reactions to the infusion

1. Breakdown of skin around the injection sites.
2. Swelling of the hands, feet, ankles, face, lips, mouth or throat
3. Tenderness or pain in the chest, muscles, joint or jaw
4. Difficulty in breathing or swallowing
5. Rise in temperature
6. Rash/itching

7. Change in blood pressure

Other potential side effects include:

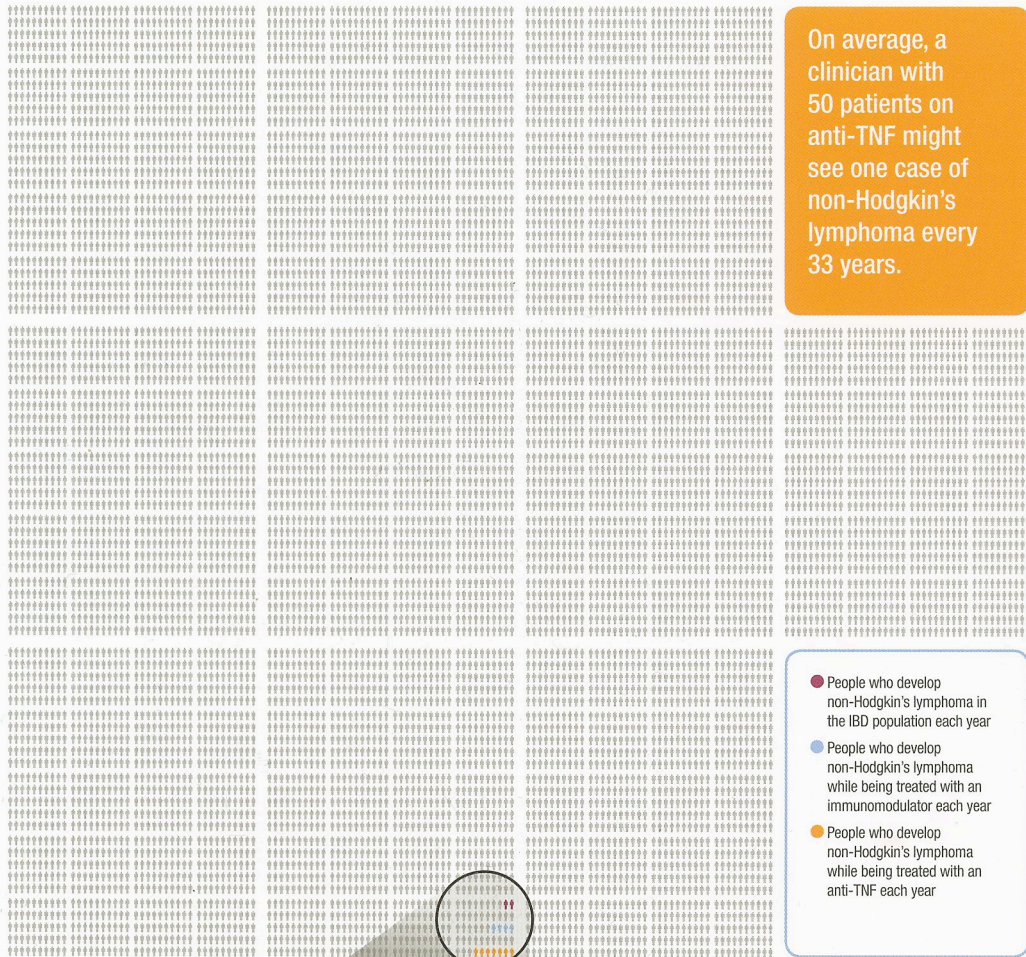
1. headache
2. sore throat
3. rash/hives
4. joint or jaw pain
5. nausea
6. diarrhoea
7. abdominal pain
8. feeling cold.

If you have any concerns about your Adalimumab treatment please discuss this with your IBD nurse specialist or your IBD Consultant.

Annual risk of lymphoma

For full safety information, please read your Patient Information Leaflet.

Ten thousand people



Crohn'sCare
From Abbott

HUMIRA
adalimumab

 **Abbott**