

Resource

# Abatacept

Abatacept is a 'biologic' drug. Biologic drugs are often referred to as 'targeted therapies' because they work on specific cells of the immune system. Abatacept works on the T-cells

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Name of Drug	How the drug is taken	How it works	Blood tests
Abatacept (ABA) Orencia	Infusion	Reduces over activity of the immune system by targeting T-cells	Yes- every 3 months generally undertaken at each infusion

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Abatacept (ABA)Orencia Prefilled syringes:50mg 87.5mg 125mg	Reduces over activity of the immune system by targeting T-cells	Subcutaneous injection	Yes- every 3 months

Orencia is the brand name of abatacept. This is also described as the 'originator' (original version of the drug). In the last few years 'biosimilar preparations' have become available. These are permitted once the patent has expired on the original drug. The biosimilar preparations are copies of the originator although their preparation (how they are produced for example volume of fluid that contains the drug) may be different. There are currently no biosimilar products available for abatacept, however these are in development.

T-cells are one type of white blood cell, called lymphocytes. T-cells are part of the normal immune system that co-ordinate the process of inflammation. In JIA, the inflammatory process (signs of which are pain, swelling, redness and heat in joints) is in 'overdrive' and needs to be controlled to prevent damage to joints and other unwanted effects. Normally the body should be able to control the degree of inflammation and abatacept was developed to mimic this naturally occurring process.

The inflammatory process in arthritis is seen and felt mostly in the joints as pain and swelling. However, the high levels of inflammation are in the blood stream and therefore will affect the general wellbeing by causing often significant fatigue, lethargy and feeling 'under the weather'.

### Background

Abatacept is the first drug developed to control the T cells of the immune system. It has been used for adults with rheumatoid arthritis since 2006 and in children with polyarthritis over 6 years of age since 2008. The National Institute for Health and Care Excellence (NICE) produced guidance for use in 2015, which was further reviewed by National Health Service England (NHSE) in 2017 and defines the use of abatacept in JIA currently. In adults and children it is available to those with an inadequate response to disease modifying anti-rheumatic drugs (DMARDs) including at least one anti-TNF drug. Abatacept may be prescribed alongside methotrexate. This guidance is also accepted in Scotland.

### How long does abatacept take to work?

Abatacept may take several weeks to show improvement (up to 3 months). Treatment needs to be reviewed if there is no response within 6 months.

### When can abatacept be prescribed?

Abatacept can only be prescribed for children and young people according to strict guidelines by paediatric and adolescent rheumatologists or specialist nurses who have undertaken non-medical

prescribing qualifications. When these guidelines are met, it can be prescribed on its own or together with methotrexate.

There will always be pre-treatment screening, particularly to establish if there is any history of tuberculosis (as this can be re-activated by abatacept). A record is taken of the vaccinations completed and any other information the prescribing specialist requires.

Whether you are a young person with JIA or the parent of a child with JIA it is important that you understand the intended treatment and any possible precautions. Equally important is a discussion about the evidence of the benefits of abatacept and the need for the ongoing research into the long-term unknown facts.

You may be invited to participate in a post marketing registry. This is a database that stores information on the use of biologic drugs and helps to increase the knowledge of these treatments. There is more confidence in the benefit of a treatment when increasing numbers of patients take it for increasing lengths of time without significant side effects. The rheumatology team caring for you will discuss this in more detail.

Prior to abatacept being prescribed, the paediatric and adolescent rheumatology doctors also need to complete regulatory documentation called Blueteq. This is to ensure and monitor eligibility for the medication. Prescribing outside of this guidance requires an Individual Funding Request (IFR). If this is the case the rheumatology team will discuss this with you.

#### How is abatacept given?

Abatacept can be given as a 30-60-minute intra-venous infusion in hospital. An intra-venous infusion means that a drug can be given slowly over a specific time directly into a vein through small plastic tubing (called a canula), connected to a large syringe or a bag of fluid hanging from a stand. This procedure is usually into a vein in the arm.

The treatment is repeated 2 weeks later and thereafter every 4 weeks. Reactions to the drug during the infusion are uncommon.

Abatacept can also be given as a weekly subcutaneous (meaning 'under the skin' and often called 'sub-cut') injection using a prefilled syringe. Abatacept can also be given as a weekly subcutaneous (meaning 'under the skin' and often called 'sub-cut') injection, using a prefilled syringe.

There are various ways that this can be organised. For example:

- parent(s) where possible will be taught to give their child's injection
- the child/young person may attend the local hospital or doctor's surgery to have the injection
- the young person, once old enough, can be encouraged to learn to inject themselves.

The dose is dependent on the child or young person's weight.

The management of this treatment is always discussed in detail at the start. Regular blood test monitoring is required; the frequency of which will depend on the prescribing specialist's advice. Regular blood test monitoring is required; the frequency of which will depend on the prescribing specialist's advice. Failure to attend for regular blood tests may result in treatment being stopped until a blood test has been undertaken.

For subcutaneous treatment, abatacept may be supplied from your hospital pharmacy or delivered to you by a homecare company.

### What are the possible side effects?

As with any medication, abatacept has possible side effects, although it is important to remember that these are only potential side effects and may not occur at all.

#### Infections

Abatacept, like other biologic drugs, has been associated with increased susceptibility to infections; sometimes these can be severe e.g. reactivation of tuberculosis or milder infections such as skin infections. Due to the risk of infection, tattoos and body piercings are not recommended.

Other possible side effects include:

- Most commonly, headache, sore throat, nausea, diarrhoea, abdominal pain, fever, cough
- Serious effects can be pneumonia and other infections and allergic reactions to the infusion or site reactions if given subcutaneously
- An increased risk of food poisoning; therefore careful hand hygiene and food preparation are essential
- Pruritis (itching), injection site reactions
- Abnormal liver function tests

More information on side effects can be found in the patient information leaflet for Abatacept

Remember to report any concerns about possible side effects to the doctors or nurses

### Abatacept with other medicines

There are currently no specific prescribed medicines to be avoided when taking abatacept, but remember to take care when using any other medications or complementary therapies (even if bought 'over the counter' for colds or flu). Remember to check with a doctor, nurse or pharmacist that they are safe to take with abatacept and any other medication taken.

Only one biologic drug is prescribed at any one time. Abatacept (a biologic drug) prescribed alongside methotrexate (a standard DMARD) is a commonly used combination.

#### Abatacept and immunisation/vaccination

Live vaccines [measles, mumps, rubella (MMR), chickenpox, oral polio (NOT injectable polio), BCG, oral typhoid and yellow fever] cannot be given to anyone already taking abatacept. If abatacept has not yet been started it is important to seek advice on how long a gap to leave after having a live vaccine.

Flu vaccine is now available in two forms, an injection and a nasal spray. Unlike the injection, the nasal spray is a live vaccine. There is limited research evidence around live vaccines in people with a lowered immune system (due to their medication). It is therefore important to discuss with the healthcare team which of these options would be best.

Vaccination of close family members can help to protect someone with a lowered immune system.

#### Adalimumab and pregnancy

There is not enough research information to give advice that either pregnancy or breastfeeding are safe.

A man or a woman taking Adalimumab should use reliable contraception during treatment and for 5 months after the last dose before planning to start a family.

Remember to ask your doctor or clinical nurse specialist for any further advice.

#### Abatacept and alcohol

Alcohol can be consumed when taking abatacept. However, caution may be required when taking other medications alongside this drug, for example methotrexate. Please see our separate articles on other JIA medications.

## Tips regarding abatacept

The following hints and tips may be useful when taking abatacept.

- DO NOT ADMINISTER abatacept to a child or young person if they have a high temperature or you are concerned they are unwell with an infection – seek medical advice from your GP or rheumatology team.
- Stay safe on abatacept by remembering to have regular blood test monitoring as advised by the

- consultant or clinical nurse specialist. These will usually be taken at the time of the infusion or, if having subcutaneously at clinic appointments or by special arrangement with your GP practice.
- To ease injection site reactions, choose alternate thighs for the injections and differ the actual site around the mid-thigh region
  - An injection site reaction that includes a rash or redness can be eased with a cold compress
  - You should aim to give the injection on the same day each week. However, if you have missed your dose the manufacturer recommends taking up to 3 days post the preferred injection day and then continuing on your original chosen day. If more than 3 days has passed, give the next dose on the originally chosen day a week post the missed dose.
  - Storage should be in a refrigerator (2°C – 8°C) and the syringes kept in the outer carton in order to protect them from light. Do not freeze (4 & 5)
  - Alert Cards: your rheumatology nurse should provide you with one of these. This indicates to health professionals that you are on a drug to suppress your immune system and reminds them to be extra-vigilant if you are unwell or having a surgical procedure or dental care where treatment may need to be temporarily delayed.

### Tips for travelling with abatacept

- Before travelling it is important to keep up to date with vaccinations
- Live vaccines (see above 'Abatacept with other medicines') must be avoided. It is important to check whether any required vaccines are 'live' before booking a holiday
- Abatacept needs to be kept refrigerated (transport in a cool bag and place in a fridge when you reach your destination). All drugs should be carried in your hand luggage.
- Your home care delivery company can advise on this and supply smaller sharps bins for travel.
- Both the company providing the medication and the airline can supply more information on travelling with abatacept.
- Your healthcare team can provide you with a letter of authorisation to travel with this drug. Homecare delivery companies also supply letters for travel.

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