

JUVENILE IDIOPATHIC ARTHRITIS: biologic agents in the management of

The Pan Mersey Area Prescribing Committee recommends the prescribing of biologic agents, by specialists only, for Juvenile Idiopathic Arthritis (JIA) as per NICE TA373, TA238, TA 685 and TA735 in adult and paediatric services

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[NICE TA373](#) (December 2015) recommends **abatacept**, **adalimumab**, **etanercept** and **tocilizumab**, within their marketing authorisations, as options for treating polyarticular juvenile idiopathic arthritis (JIA), including polyarticular-onset, polyarticular-course and extended oligoarticular JIA. That is:

- For **abatacept**, people 2 years and older whose disease has responded inadequately to other disease-modifying anti-rheumatic drugs (DMARDs) including at least 1 tumour necrosis factor (TNF) inhibitor
- For **adalimumab**, people 2 years and older whose disease has responded inadequately to 1 or more DMARD
- For **etanercept**, people 2 years and older whose disease has responded inadequately to, or who are intolerant of, methotrexate
- For **tocilizumab**, people 1 year and older whose disease has responded inadequately to previous therapy with methotrexate.

Abatacept and tocilizumab are recommended only if the companies provide them with the discounts agreed in the patient access schemes for these technologies.

Adalimumab and etanercept are recommended, within their marketing authorisations, as options for treating enthesitis-related JIA, that is, for people 6 years and older (adalimumab) and 12 years and older (etanercept) whose disease has responded inadequately to, or who are intolerant of, conventional therapy.

Etanercept is recommended, within its marketing authorisation, as an option for treating psoriatic JIA, that is, in people aged 12 years and over whose disease has responded inadequately to, or who are intolerant of, methotrexate.

[NICE TA238](#) recommends **tocilizumab** for the treatment of systemic JIA in children and young people aged 2 years and older whose disease has responded inadequately to non-steroidal anti-inflammatory drugs (NSAIDs), systemic corticosteroids and methotrexate.

[NICE TA685](#) (March 2021) recommends **anakinra** as an option for treating systemic JIA in those 8 months or older with a body weight of 10kg or more that has not responded to at least 1 conventional DMARD.

[NICE TA735](#) recommends **tofacitinib** as an option for treating active polyarticular JIA and juvenile psoriatic arthritis in people 2 years and older if their condition has responded inadequately to DMARDs, if a TNF alpha inhibitor is not suitable or does not control the condition well enough, and the company provides tofacitinib according to the commercial arrangement.

Biologic treatments for JIA in paediatric patients are commissioned by NHS England, however, biologic treatments for JIA in adult patients are commissioned by CCGs in the following circumstances:

- Where the patient transitions into adult services while on biologic treatment for JIA
- Where the patient transitions into adult services with a pre-existing diagnosis of JIA and treatment with a biologic becomes necessary according to the above criteria
- Where a patient first receives a diagnosis of JIA in adult rheumatology service and treatment with a biologic becomes necessary according to the above criteria.

Note: Patients who are not eligible for treatment under this statement may be considered on an individual basis where their GP or consultant believes exceptional circumstances exist that warrant deviation from the rule of this policy. In this situation, follow locally defined processes.

NICE TA373 states it is unlikely that the guidance will result in a significant change in resource use in the NHS because it is considered that the recommendations are consistent with current clinical practice therefore no costing template has been produced. Prevalence of JIA is approximately 16 per 100,000 population.

Abatacept may be administered by subcutaneous injection (off-label indication for this route of administration), as an alternative to intravenous infusion. Tocilizumab may be administered by subcutaneous injection as an alternative to intravenous infusion in JIA (off-label dose for this indication).

N.B. Where patient transitions from a paediatric service to an adult service already on treatment with rituximab or anakinra, or subsequently requires it (as per [NHSE policy E03X04](#)), this should be continued or initiated where clinically appropriate.

Sequential use – JIA

Allow “switching” between agents in case of initial or subsequent agent failure as follows:

Primary inefficacy - up to total of 7 sequential options

- A-TNF - receptor (etanercept)
- A-TNF – antibody (others)
- Tocilizumab
- Abatacept
- Rituximab (as per NHSE policy)
- Anakinra
- Tofacitinib

Secondary inefficacy - another approved high-cost drug may be used. Where secondary failure of efficacy may be a class effect, use another drug from an alternative drug class. Avoid using more than two anti-TNF agents

Adverse effect - another approved high-cost drug may be used. Where adverse-effect may be a class effect use another drug from an alternative drug class.

Costing information subcutaneous route vs intravenous route - JIA

Abatacept infusion:

750mg every 4 weeks – drug cost £1,088.64 incl.VAT + administration cost £102* = £1,190.64

Abatacept subcutaneous injection:

125mg once per week x 4 weeks – drug cost £1,209.60 (no VAT applic. to home supply) = £1,209.60

Tocilizumab infusion (polyarticular JIA):

8 mg/kg once every 4 weeks (560mg) – drug cost £860.16 incl. VAT + administration cost £102* = £962.16

Tocilizumab subcutaneous injection:

162mg once per week x 4 weeks – drug cost £913.12 (no VAT applic. to home supply) = £913.12

These costs are at basic NHS price. Abatacept and tocilizumab are supplied at a discount as agreed in the NICE-approved patient access scheme.

*Administration cost assumed by NICE costing template TA195. In practice this may vary according to provider.