

**Treatment of active psoriatic arthritis AFTER inadequate response to DMARDs (in line with NICE guidance, technology appraisals and local agreement)**

**Box A: Does the patient have peripheral arthritis with  $\geq 3$  tender joints (TJC) and  $\geq 3$  swollen joints (SJC) AND psoriatic arthritis has not responded to adequate trials of at least 2 standard DMARDs (individually or in combination) for at least 12 weeks?**

Yes

**Box 1 – First-line options (as per NICE TAs)**

The least expensive appropriate option should be chosen taking into account drug administration costs, required dose and product price per dose. **This is usually adalimumab biosimilar.**

**TNF inhibitors (TNFi) +/- Methotrexate (MTX)      JAK inhibitors, + MTX only**

- |  |                               |
|--|-------------------------------|
| a) Adalimumab (biosimilar only), TA199 | a) Tofacitinib, TA543         |
| b) Etanercept (biosimilar only), TA199 |                               |
| c) Infliximab (biosimilar only), TA199 | <b>PDE4 inhibitor +/- MTX</b> |
| d) Golimumab, TA220                    | <b>or another oral DMARD</b>  |
| e) Certolizumab, TA445                 | a) Apremilast, TA433          |

**IL-17A inhibitors +/- MTX**

- Secukinumab, TA445
- Ixekizumab, TA537

If a TNFi is contraindicated consider JAK Inhibitor (tofacitinib) + MTX OR Apremilast (+/- MTX or another oral DMARD) OR IL-17A inhibitor (secukinumab, ixekizumab) +/- MTX, OR IL-12/23 inhibitor (ustekinumab TA340) +/- MTX (Options are listed by class and overall cost).

**Box 2:**

**Biologic response assessment**

- TNFi and JAK inhibitors:* Review at 12 weeks
- IL-17A inhibitors and PDE4 inhibitor:* Review at 16 weeks
- IL-12/23:* Review at 24 weeks
- IL-23 inhibitors:* Review at 16 weeks (stop at 24 weeks if inadequate response)

**Adequate response to treatment**

- PsARC:* Improvement in  $\geq 2$  of 4 PsARC criteria  $\geq 1$  to be tender or swollen joint and no worsening in any of the 4 criteria
- PASI:* 75% reduction in the PASI score (PASI 75) from when treatment started (where applicable). If an adequate PASI 75 response is achieved but the PsARC score has not met the required threshold, consider referral to consultant dermatologist for assessment to determine whether continuation appropriate on basis of clinical response, detailed in the [adult psoriasis pathway](#)

**Biosimilars:** Prescribing of biologics should be by brand. Where available, biosimilars should be prescribed as per local arrangements (new patients started on biologics where a biosimilar is available to be prescribed biosimilars; existing patients to be reviewed with a view to switching from originator to biosimilar).

Assess response – **has an adequate response been achieved (see box 2)?**  
Withdraw if adequate response is not maintained / intolerant and move to next stage in the pathway

Yes

Continue with a minimum of 6 to 12 monthly monitoring until adequate response (see box 2) is no longer maintained.

Yes

No

**Box 3 – Second line options**

Consider changing to an alternative biologic drug (primary or secondary failure, see **box 2 definition of adequate response**) OR the drug cannot be tolerated / becomes contraindicated AND it is demonstrated that the least expensive biologic from a different class can be used.

The least expensive appropriate drug in class should be used. Where there is more than one suitable class, the least expensive option should be chosen. Select alternative treatment option from **box 1**. **Note an IL-23 inhibitor +/- MTX (Guselkumab, TA711) is also an option at this stage.** If least expensive choice is not selected clinical rationale to be provided

Yes

Assess response – **has an adequate response been achieved (see box 2)?** Withdraw if adequate response is not maintained / intolerant and move to next stage in the pathway

**Guselkumab +/- MTX** is a treatment option when criteria in Box A is fulfilled, when at least 1 biological DMARD has been trialed and the patient has moderate to severe psoriasis (a body surface area of at least 3% affected by plaque psoriasis and a Psoriasis Area and Severity Index [PASI] score greater than 10)

Assess response at least every 6 to 12 months. Continue treatment if an **adequate response is maintained**. Withdraw if adequate response is not maintained / intolerant and **STOP**

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**Notes:**

1. Applying the principles used to develop the treatment of severe plaque psoriasis in adults AFTER the use of systemic treatments have failed which states that consideration should be given to changing to an alternative biological therapy in adult patients:
  - a) In primary failure where the condition does not respond adequately to a first biological drug within the timescales defined in NICE technology appraisals (specified in box 2)
  - b) In secondary failure where the condition initially responds adequately but subsequently loses this response
  - c) the first biological drug cannot be tolerated or becomes contraindicated. However local agreement (October 2021 applicable to all lines of therapy) where patients discontinue a drug due to adverse effects or the drug becoming contraindicated during the timescales for the assessment of efficacy at initiation defined in the respective NICE technology appraisals, this will not be regarded as one of the sequential treatment options.
2. TNF inhibitors: (NICE TA455)  
In primary failure an alternative TNFi (certolizumab) can be considered if other least costly options are not clinically appropriate.
3. Upto a maximum of 2 sequential treatments are routinely commissioned, when a TNFi agent is used first line.

<b>References</b>	<ul style="list-style-type: none"> <li>• NICE Clinical Guidelines NG65: Spondyloarthritis in over 16s: diagnosis and management (Published date: 28 February 2017) <a href="https://www.nice.org.uk/guidance/ng65">https://www.nice.org.uk/guidance/ng65</a></li> <li>• NICE Psoriasis: assessment and management Clinical guideline [CG153] (Published date: 24 October 2012 Last updated: 01 September 2017) <a href="https://www.nice.org.uk/guidance/cg153">https://www.nice.org.uk/guidance/cg153</a></li> <li>• NICE Technology appraisal guidance 199: Etanercept, infliximab and adalimumab for the treatment of psoriatic arthritis(Published: 25 August 2010) <a href="https://www.nice.org.uk/guidance/ta199">https://www.nice.org.uk/guidance/ta199</a></li> <li>• NICE Technology appraisal guidance TA220: Golimumab for the treatment of psoriatic arthritis (Published: 27 April 2011) <a href="https://www.nice.org.uk/guidance/ta220">https://www.nice.org.uk/guidance/ta220</a></li> <li>• NICE Technology appraisal guidance TA433: Apremilast for treating active psoriatic arthritis (Published: 22 February 2017) <a href="https://www.nice.org.uk/guidance/ta433">https://www.nice.org.uk/guidance/ta433</a></li> <li>• NICE Technology appraisal guidance TA340: Ustekinumab for treating active psoriatic arthritis (Published: 04 June 2015 Last updated: 03 March 2017) <a href="https://www.nice.org.uk/guidance/ta340">https://www.nice.org.uk/guidance/ta340</a></li> <li>• NICE Technology appraisal guidance TA445: Certolizumab pegol and secukinumab for treating active psoriatic arthritis after inadequate response to DMARDs (Published: 24 May 2017) <a href="https://www.nice.org.uk/guidance/ta445">https://www.nice.org.uk/guidance/ta445</a></li> <li>• NICE Technology appraisal guidance TA537: Ixekizumab for treating active psoriatic arthritis after inadequate response to DMARDs (Published: 08 August 2018) <a href="https://www.nice.org.uk/guidance/ta537">https://www.nice.org.uk/guidance/ta537</a></li> <li>• NICE Technology appraisal guidance TA543: Tofacitinib for treating active psoriatic arthritis after inadequate response to DMARDs (Published: 03 October 2018) <a href="https://www.nice.org.uk/guidance/ta543">https://www.nice.org.uk/guidance/ta543</a></li> <li>• NICE Technology appraisal guidance TA711: Guselkumab for treating active psoriatic arthritis after inadequate response to DMARDs (Published: 30 June 2021) <a href="https://www.nice.org.uk/guidance/ta711">https://www.nice.org.uk/guidance/ta711</a></li> </ul>
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