Hertfordshire and West Essex Area Prescribing Committee (HWE APC)

Treatment of severe plaque psoriasis in adults AFTER the use of systemic treatments have failed (in line with NICE guidance, technology appraisals and local agreement) – Updated January 2025.

This algorithm is only applicable for use in adult patients who have failed to respond to, who are intolerant of or who have contraindications to the use of standard systemic therapies i.e. ciclosporin*, methotrexate and phototherapy. The treatment choices available vary depending on severity of disease (as indicated in the algorithm below).

If the patient has both psoriasis and psoriatic arthritis, take into account both conditions before initiating or making changes to treatment with biological drugs. The specialty for the more severe condition would generally be expected to take responsibility for prescribing the biologic.

***Patients with pre-existing hyperlipidaemia or hypertension can skip ciclosporin due to risks of exacerbating these. Patients with severe psoriasis and concomitant psoriatic arthritis can skip ciclosporin as it does not treat psoriatic arthritis.**

Biosimilars - The prescribing of all biologics should be by brand name. Where available, biosimilars should be prescribed in accordance with current local arrangements (all 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).

Moderate disease
Does not qualify for treatment in this pathway.

Severe disease - (PASI ≥10, DLQI >10).

Key to terms:
PASI: Psoriasis Area and Severity Index
DLQI: Dermatology Life Quality Index
TA: NICE Technology Appraisal
CG: NICE Clinical Guideline

Box 1 – First-line biologic agents (as per NICE TAs)
The least expensive appropriate option should be chosen. Options are listed by cost and class (least to most expensive):

TNF inhibitors
Adalimumab (biosimilar only)- *(usual 1st line choice unless contra-indicated)*, TA146 - *Review at 16 weeks.* Dose escalation or interval reduction can be considered (see box 4),
Etanercept (biosimilar only), TA103 - *Review at 12 weeks,*
Infliximab (biosimilar only), TA134 Only if PASI ≥20 and DLQI >18 *Review at 10 weeks,*
Certolizumab, TA574 - *Review at 16 weeks (may be considered before or during pregnancy).*

IL-12 /IL-23 inhibitor
Ustekinumab (biosimilar only), TA180 *Review at 16 weeks.*

IL-23 inhibitors
Guselkumab, TA521 *Review at 16 weeks*
Tildrakizumab, TA575 *Review at 28 weeks*
Risankizumab, TA596 *Review at 16 weeks*

IL-17 inhibitors
Bimekizumab, TA723 – *Review at 16 weeks* **or** Brodalumab, TA511 *Review at 12 weeks,*
Ixekizumab, TA442 - *Review at 12 weeks,*
Secukinumab, TA350 - *Review at 12 weeks.*

NOTE:
If patient also has psoriatic arthritis (PsA) the following are NOT currently licensed for PsA: Brodalumab Tildrakizumab, Dimethyl fumarate, Deucravacitinib.

Oral therapies (as per individual NICE TAs):
Tyrosine kinase 2 inhibitor – Deucravacitinib TA 907 - *Review between 16 and 24 weeks* **or PDE-4 inhibitor - Apremilast TA419 -** *Review at 16 weeks* **or Immunomodulator - dimethyl fumarate TA475.** *Review at 16 weeks*

Note: Deucravacitinib is considered more effective than Apremilast which is considered more effective than dimethyl fumarate. Deucravacitinib would not be a cost-effective use of NHS resources if used when adalimumab, bimekizumab or tildrakizumab are considered to be suitable treatment options ((NICE TA 907).

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.

No

Yes

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

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

No

Box 2 – Adequate response - As per NICE, either:
- a 75% reduction in the PASI score (PASI 75) from when treatment started.
- a 50% reduction in the PASI score (PASI 50) and a 5 point reduction in DLQI from start of treatment.

Box 3
Dose escalation or interval reduction (Local agreement March 2022) For patients on adalimumab whose psoriasis initially responds adequately but subsequently loses response consider dose escalation or interval reduction (see box 4)
Second line biologic agents (Local agreement December 2018) Consider changing to an alternative biologic drug if the psoriasis does not respond adequately (primary or secondary failure, see box 2) OR the drug cannot be tolerated / becomes contraindicated AND a 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. See box 1 for cost order of biologics.

Box 4 - Adalimumab dose escalation or interval reduction: Dose escalation or interval reduction can be considered for patients on adalimumab whose psoriasis initially responds adequately but subsequently loses response (secondary failure).

Following dose escalation or interval reduction review within 12 weeks and consider a trial of de-escalation back to standard dose. Patients may be re-escalated and maintained on escalated /interval reduction dose.

The increased risk of infection and other adverse drug reactions with an escalated dose should be taken into account. (Local agreement – March 2022)

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 12 monthly monitoring until adequate response (see box A) is no longer maintained.

No

Third line biologic agents (Local agreement, December 2018)
Consider changing to an alternative biologic drug as per box 3.
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. See box 1 for cost order of biologics.

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 12 monthly monitoring until adequate response (see box 2) is no longer maintained.

No

Fourth line biologic agent (Local agreement, March 2022)
Consider changing to an alternative biologic drug as per box 3.
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. See box 1 for cost order of biologics.

Assess response – **has an adequate response been achieved (see box A)**? Withdraw if adequate response is not maintained / intolerant and STOP

Yes

Further Information: Refer to SPC and BNF for full prescribing information.

TREATMENT REQUESTS BEYOND THE END OF THE ALGORITHM ARE NOT ROUTINELY COMMISSIONED.

NICE recommends if patients and their clinicians consider a medicine to be one of a range of suitable treatments, the least expensive treatment should be chosen, taking into account administration costs, dosage, price per dose and commercial arrangements. Therefore, in line with this recommendation and HWE APC agreed principles the order of preference of treatments within this pathway will be updated accordingly as prices change or biosimilar medicines become available.

Version:	3.0 Updates (January 2025) include – Addition of Deucravacitinib (NICE TA 907) to the pathway. Addition of information that Deucravacitinib is currently not licensed or approved for use in psoriatic arthritis. Addition of information - Patients with pre-existing hyperlipidaemia or hypertension can skip ciclosporin due to risks of exacerbating these. Patients with severe psoriasis and concomitant psoriatic arthritis can skip ciclosporin as it does not treat psoriatic arthritis. Addition of Ustekinumab biosimilar and corresponding adjustment of order of choice according to cost. Addition of statement on the HWE APC locally agreed principles for the order of preference of treatments (statement agreed HWE APC June 2024)
Approved by:	Hertfordshire & West Essex Area Prescribing Committee
Date approved / updated	January 2025.
Developed by:	Developed by pharmacy and medicines optimisation team Hertfordshire and West Essex (HWE) ICB with relevant HWE ICS stakeholders.

Review date	This recommendation is based upon the evidence available at the time of publication. This recommendation will be reviewed upon request in the light of new evidence becoming available.
Superseded version	Version 2.0 HWE APC February 2023 - Updates included • Rizankizumab is licensed for use in psoriatic arthritis and approved by NICE (NICE TA803). The Pathway has been updated to reflect change in license. • NICE TA 711 on Guselkumab for treating active psoriatic arthritis after inadequate response to DMARDs has been updated and replaced by NICE TA803. The manufacturer has also lowered cost of Guselkumab to the NHS. The pathway has been updated to reflect the changes. HMMC December 2018; updated March 2022 and WEMOPB Sept 2018; updated March 2022