British Association of Dermatologists guidelines for biologic therapy for psoriasis 2023 – a pragmatic update

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***Footnote**
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Declarations of interests

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The British Association of Dermatologists (BAD) published the fourth iteration of its clinical guideline for biologic therapy for people with moderate-to-severe psoriasis in 2020.[1] Recommendations were informed by an updated systematic review and network meta-analysis (SR/NMA)[2] and covered all licensed biologic agents approved for use in the United Kingdom's National Health Service (NHS) at the time. Since then, bimekizumab (a monoclonal antibody that binds to IL-17A and IL-17F) has been licensed for use in adults with psoriasis[3] and the secukinumab licence has been extended to include children and young people aged 6 to 17 years.[4] In line with the BAD's clinical guideline strategy, and in response to the rapidly changing psoriasis therapeutics, the BAD's biologics guideline will be transitioning to a *living* guideline.[5,6] In this model, recommendations are envisaged to be updated as soon as or shortly after evidence becomes available, or when changes in the body of the evidence have a potential impact on the strength or direction of recommendations. Pending this more formal evidence review, in this publication the GDG convened and decided simply to include bimekizumab for adults and secukinumab for those aged 6-17 years, in line with NICE guidance.

The GDG has also updated the decision aid. To do this, we used the Cochrane *living* SR/NMA (i.e. systematic reviews that are continually and regularly updated, incorporating relevant new evidence as it becomes available) of systemic pharmacological treatments for chronic plaque psoriasis.[7] The Cochrane Skin Group re-ran the NMA, restricted to those interventions within the guideline's scope (licensed and NICE-approved biologic agents, plus methotrexate). Anticipated absolute effect estimates were extracted for use in the updated decision aid (Table 1). This has allowed us to update the decision aid rapidly and in line with emerging evidence now, and in the future. There are two important aspects to highlight as a result of moving to this living NMA as the source underpinning guideline evidence. Firstly, the anticipated absolute estimates of short-term efficacy (i.e. PASI 90) for all biologics has changed compared to the 2020 guideline update. These changes are driven by small methodological differences, but essentially, have not led to significant changes to the SUCRA (surface under the cumulative ranking curve) ranking from the NMA. Secondly, we have changed our outcome measure of tolerability from 'withdrawal due to adverse effects' to 'serious adverse events' to match that in the Cochrane SR/NMA. The percentages quoted in the column on persistence on therapy after 1 year in the decision aid are derived from UK real-world data on both mixed biologics population[8] and biologic-naïve population, as indicated.[9]

Our collaboration with the Cochrane Skin Group facilitates this *living* evidence 'ecosystem' so that up-to-date and timely recommendations are in place to support clinical practice.

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TABLE 1. DECISION AID – BIOLOGIC THERAPY FOR PSORIASIS

This is a decision aid to help clinicians and patients decide their treatment choice and not a comprehensive data source or replacement for the individual drug Summary of Product Characteristics. Please use in conjunction with the published 2020 guideline,[1] its associated pathway algorithm and discussions in the online supporting information document (File S2, Appendix D) and the updated posology table for the current update (BAD website link).

	How do I take it?		How effective is it?		How common are the side effects?	Is there anything else to consider?	
Questions you might want to ask	**How often do I need to inject the treatment?[a]**	**For how long has this treatment been around?[b]**	**Roughly what proportion of people becomes clear or nearly clear (PASI90) in the first 6 months?[c]**	**What is the likelihood of staying on this treatment past 1 year?[d]**	**Roughly what proportion of people experiences serious adverse effects in the first 6 months?[c]**	**What are *some* of the conditions that would make your doctor hesitant about giving you the treatment?[e]**	**What if I have psoriatic arthritis?**
TNF							
Adalimumab	Every other week[f]	Since 2008	 31%	74-76% chance†	 2%	Moderate or severe heart failure, multiple sclerosis (or other conditions affecting the nerves)	Recommended treatment for psoriatic arthritis
Certolizumab pegol	Every 2 weeks[f]	Since 2019	 24%	Not known at present	 2%	Moderate or severe heart failure, multiple sclerosis (or other conditions affecting the nerves)	Recommended treatment for psoriatic arthritis
Etanercept	Once or twice a week[f]	Since 2004	 18%	67-73% chance‡	 2%	Moderate or severe heart failure, multiple sclerosis (or other conditions affecting the nerves)	Recommended treatment for psoriatic arthritis
Infliximab	Every 8 weeks[g]*	Since 2006	 91%	54-74% chance‡	 3%	Moderate or severe heart failure, multiple sclerosis (or other conditions affecting the nerves)	Recommended treatment for psoriatic arthritis

[a] Only licensed maintenance doses are featured; see File S1 (updated posology table S1) for information on initiation dosing schedules.

[b] First approval of the drug for moderate-to-severe plaque psoriasis.

[c] The evidence is drawn from clinical trials including a mixed biologic-naïve and experienced adult population; figures quoted are based on anticipated absolute effects derived from network meta-analyses of biologic therapies (and methotrexate) for chronic plaque psoriasis involving licensed biologic doses only.

[d] The evidence is drawn from a real-world UK mixed population† and biologic-naïve population‡ – it may not apply to biologic choice for subsequent lines of treatment.

[e] Please refer to individual drugs' summary of product characteristics for a more comprehensive list (www.medicines.org.uk).

[f] Licensed escalated dose available. *Off-license dose-escalation recommendation.

[g] Requires attendance to hospital.

Questions you might want to ask	How do I take it?		How effective is it?		How common are the side effects?	Is there anything else to consider?	
	How often do I need to inject the treatment?	For how long has this treatment been around?	Roughly what proportion of people becomes clear or nearly clear (PASI90) in the first 6 months?	What is the likelihood of staying on this treatment past 1 year?	Roughly what proportion of people experiences serious adverse effects in the first 6 months?[c]	What are *some* of the conditions that would make your doctor hesitant about giving you the treatment?	What if I have psoriatic arthritis?
IL12/23							
Ustekinumab	Every 12 weeks*	Since 2009	 34%	84-86% chance†	 2%	No particular condition	Recommended treatment for psoriatic arthritis only when TNF inhibitors have failed
IL17							
Bimekizumab	Every 8 weeks[f]	Since 2021	 54%	Not known at present	 1%	Inflammatory bowel disease (e.g. Crohn's disease or ulcerative colitis), recurrent candida infection (i.e. thrush)	Recommended treatment for psoriatic arthritis
Brodalumab	Every 2 weeks	Since 2018	 50%	Not known at present	 2%	Inflammatory bowel disease (e.g. Crohn's disease or ulcerative colitis), recurrent candida infection (i.e. thrush)	This treatment is not licensed[h] for psoriatic arthritis
Ixekizumab	Every 4 weeks*	Since 2016	 53%	77-83% chance†	 2%	Inflammatory bowel disease (e.g. Crohn's disease or ulcerative colitis), recurrent candida infection (i.e. thrush)	Recommended treatment for psoriatic arthritis
Secukinumab	Every month[f]	Since 2015	 47%	80-83% chance†	 2%	Inflammatory bowel disease (e.g. Crohn's disease or ulcerative colitis), recurrent candida infection (i.e. thrush)	Recommended treatment for psoriatic arthritis
IL23							
Guselkumab	Every 8 weeks	Since 2018	 44%	85-90% chance†	 2%	No particular condition	Recommended treatment for psoriatic arthritis[f]

[h] A treatment that is not licensed for a particular condition means it has not been awarded a Market Authorisation from the U.K. Medicines Healthcare Products Regulatory Agency (MHRA) for that condition. Once awarded, the licensed treatment can be marketed and sold in the U.K.

Questions you might want to ask	How do I take it?		How effective is it?		How common are the side effects?	Is there anything else to consider?	
	How often do I need to inject the treatment?	For how long has this treatment been around?	Roughly what proportion of people becomes clear or nearly clear (PASI90) in the first 6 months?	What is the likelihood of staying on this treatment past 1 year?	Roughly what proportion of people experiences serious adverse effects in the first 6 months?[c]	What are *some* of the conditions that would make your doctor hesitant about giving you the treatment?	What if I have psoriatic arthritis?
Risankizumab	Every 12 weeks	Since 2019	 51%	Not known at present	 1%	No particular condition	Recommended treatment for psoriatic arthritis
Tildrakizumab	Every 12 weeks[f]	Since 2019	 32%	Not known at present	 1%	No particular condition	This treatment is not licensed[h] for psoriatic arthritis
Placebo							
No active treatment	Does not apply	Does not apply	 2%	Does not apply	 2%	Does not apply	Does not apply

NICE eligibility criteria, infliximab: PASI ≥20, DLQI >18; other biologic therapies: PASI ≥10, DLQI >10