

Professional organisation submission

Brodalumab for treating moderate to severe plaque psoriasis [ID878]

Thank you for agreeing to give us your organisation's views on this technology and its possible use in the NHS.

You can provide a unique perspective on the technology in the context of current clinical practice that is not typically available from the published literature.

To help you give your views, please use this questionnaire. You do not have to answer every question – they are prompts to guide you. The text boxes will expand as you type.

Information on completing this submission

- Please do not embed documents (such as a PDF) in a submission because this may lead to the information being mislaid or make the submission unreadable
- We are committed to meeting the requirements of copyright legislation. If you intend to include **journal articles** in your submission you must have copyright clearance for these articles. We can accept journal articles in NICE Docs.
- Your response should not be longer than 13 pages.

About you	
1. Your name	Dr Pamela McHenry, Prof David Burden and Prof Catherine Smith, on behalf of the Therapy & Guidelines sub-committee and British Association of Dermatologists Biologic Interventions Register (BADBIR) Steering Committee
2. Name of organisation	British Association of Dermatologists (BAD)

3. Job title or position	Consultant Dermatologists
4. Are you (please tick all that apply):	<input checked="" type="checkbox"/> an employee or representative of a healthcare professional organisation that represents clinicians? <input checked="" type="checkbox"/> a specialist in the treatment of people with this condition? <input checked="" type="checkbox"/> a specialist in the clinical evidence base for this condition or technology? <input type="checkbox"/> other (please specify):
5a. Brief description of the organisation (including who funds it).	The BAD is a charity whose charitable objectives are the practice, teaching, training and research of Dermatology. It works with the Department of Health, patient bodies and commissioners across the UK, advising on best practice and the provision of Dermatology services across all service settings. It is funded by the activities of its Members.
5b. Do you have any direct or indirect links with, or funding from, the tobacco industry?	No.
The aim of treatment for this condition	
6. What is the main aim of treatment? (For example, to stop progression, to improve mobility, to cure the condition,	<ul style="list-style-type: none"> • Control of psoriasis with the aim of a 'clear' or 'nearly clear' Physician's Global Assessment rating • Reducing the impact of the disease on quality of life • Control of psoriatic arthritis, where relevant

<p>or prevent progression or disability.)</p>	
<p>7. What do you consider a clinically significant treatment response? (For example, a reduction in tumour size by x cm, or a reduction in disease activity by a certain amount.)</p>	<p>Current guidelines (specifically 2017 BAD guidelines on biologic therapies for psoriasis (<i>in press</i>), and prior NICE STAs have defined a minimum clinically significant improvement as:</p> <ul style="list-style-type: none"> • $\geq 50\%$ reduction in baseline disease severity, e.g. a PASI50 response, or percentage BSA where PASI is not applicable, and • Clinically relevant improvement in physical, psychological or social functioning (e.g. \geq a 4-point improvement in DLQI score or resolution of low mood)
<p>8. In your view, is there an unmet need for patients and healthcare professionals in this condition?</p>	<p>Yes:</p> <ol style="list-style-type: none"> 1. In real-world practice, not all people with psoriasis who fulfil NICE criteria for biologic therapy respond to existing biologic therapies; secondary failure is also common (Iskandar IYK, Ashcroft DM, Warren RB, Evans I, McElhone K, Owen CM, Burden AD, Smith CH, Reynolds NJ, Griffiths CEM. Patterns of biologic therapy use in the management of psoriasis: cohort study from the British Association of Dermatologists Biologic Interventions Register (BADBIR). Br J Dermatol. 2017 May;176(5):1297-1307. doi: 10.1111/bjd.15027. Epub 2017 Mar 20. PubMed PMID:27589476; Warren RB, Smith CH, Yiu ZZN, Ashcroft DM, Barker JNWN, Burden AD, Lunt M, McElhone K, Ormerod AD, Owen CM, Reynolds NJ, Griffiths CEM. Differential Drug Survival of Biologic Therapies for the Treatment of Psoriasis: A Prospective Observational Cohort Study from the British Association of Dermatologists Biologic Interventions Register (BADBIR). J

	<p>Invest Dermatol. 2015 Nov;135(11):2632-2640. doi: 10.1038/jid.2015.208. Epub 2015 Jun 8. PubMed PMID:26053050.</p> <ol style="list-style-type: none"> 2. In moderate psoriasis, i.e. those who would fulfil the licensed indications for biologic therapy (including brodalumab) but not necessarily NICE criteria, there are very few options and yet the disease can still have a very major impact on quality of life 3. People with severe psoriasis at localised sites, i.e. high-need areas such as face, hands, feet, flexural/genital sites, will not have a PASI 10 but nevertheless will have disease with very major impact.
<p>What is the expected place of the technology in current practice?</p>	
<p>9. How is the condition currently treated in the NHS?</p>	<p>With NICE-approved biologic therapies; apremilast; fumaric acid esters; standard systemic therapies (see NICE CG153).</p>
<ul style="list-style-type: none"> • Are any clinical guidelines used in the treatment of the condition, and if so, which? 	<p>BAD guideline for biologic therapy for psoriasis (<i>in press</i>) http://onlinelibrary.wiley.com/doi/10.1111/bjd.15665/full</p> <p>NICE CG153 www.nice.org.uk/guidance/cg153</p> <ul style="list-style-type: none"> ➔ In the final scope, please refer to NICE CG153 accurately (i.e. corticosteroids/vitamin d as first line), also updated in 2016/7 ➔ Phototherapy/systemic therapy for disease that is extensive (10% or more) – i.e. this group cannot usually be managed adequately with topical therapy alone (again please refer to CG153 accurately) ➔ There should also be mention of psoriatic arthritis as an important, common co-morbidity and that when present, of the standard systemic therapies used in psoriasis, only methotrexate is helpful for <u>both</u> joints and skin.

	<p>Additionally, the final scope mentions that “most treatments reduce severity rather than prevent episodes” – there is no evidence that any of the treatments are disease-modifying. This would better describe the point being made here (rather than “most treatments reduce severity...”) as many of the new biologic treatments <u>do</u> clear or nearly clear the disease and maintain it in this state.</p> <p>Finally, please add “people with and without psoriatic arthritis”, and “people who are and not obese” to the “Other considerations” section for consideration of population subgroups.</p>
<ul style="list-style-type: none"> Is the pathway of care well defined? Does it vary or are there differences of opinion between professionals across the NHS? (Please state if your experience is from outside England.) 	<p>Yes – please see NICE CG153.</p> <p>Data from BADBIR national pharmacovigilance registry suggest that most people with psoriasis fulfil stipulated criteria, e.g. PASI mean (SD) = 16.4 (8.3) – please see Iskandar IY, Ashcroft DM, Warren RB, Yiu ZZ, McElhone K, Lunt M, Barker JN, Burden AD, Ormerod AD, Reynolds NJ, Smith CH, Griffiths CE. Demographics and disease characteristics of patients with psoriasis enrolled in the British Association of Dermatologists Biologic Interventions Register. Br J Dermatol. 2015 Aug;173(2):510-8. doi: 10.1111/bjd.13908. Epub 2015 Jul 6. PubMed PMID:25989336.</p>
<ul style="list-style-type: none"> What impact would the technology have on the current pathway of care? 	<p>An additional option to consider in people with severe psoriasis; an agent with a novel mode of action, i.e. IL17 receptor antagonist. More agents within the same ‘market’ may provide motivation to drive down the price.</p>
<p>10. Will the technology be used (or is it already used) in</p>	<p>Yes – biologic therapy is a well-established intervention in psoriasis.</p>

the same way as current care in NHS clinical practice?	
<ul style="list-style-type: none"> How does healthcare resource use differ between the technology and current care? 	There would not be any expected differences in health resource use compared to existing NICE-approved agents.
<ul style="list-style-type: none"> In what clinical setting should the technology be used? (For example, primary or secondary care, specialist clinics.) 	Secondary care and specialist clinics.
<ul style="list-style-type: none"> What investment is needed to introduce the technology? (For example, for facilities, equipment, or training.) 	No additional investment would be required.
11. Do you expect the technology to provide clinically meaningful benefits compared with current care?	Yes
<ul style="list-style-type: none"> Do you expect the technology to increase 	N/A

length of life more than current care?	
<ul style="list-style-type: none"> Do you expect the technology to increase health-related quality of life more than current care? 	Potentially yes, by providing an additional treatment option for this major, chronic debilitating disease.
12. Are there any groups of people for whom the technology would be more or less effective (or appropriate) than the general population?	As per label, caution should be exercised in people with inflammatory bowel disease (may potentially worsen disease).
The use of the technology	
13. Will the technology be easier or more difficult to use for patients or healthcare professionals than current care? Are there any practical implications for its use (for example, any concomitant	Biologic therapy has been available on the NHS for people with moderate-to-severe psoriasis who meet the eligibility criteria.

<p>treatments needed, additional clinical requirements, factors affecting patient acceptability or ease of use or additional tests or monitoring needed.)</p>	
<p>14. Will any rules (informal or formal) be used to start or stop treatment with the technology? Do these include any additional testing?</p>	<p>The 2017 BAD guidelines (<i>in press</i>) recommended biologic therapy for the following people with psoriasis:</p> <p>Offer biologic therapy to people with psoriasis requiring systemic therapy if methotrexate and ciclosporin have failed, are not tolerated or are contraindicated (see NICE guidelines CG153) and the psoriasis has a large impact on physical, psychological or social functioning (e.g. Dermatology Life Quality Index [DLQI] or Children’s DLQI > 10 or clinically relevant depressive or anxiety symptoms) and one or more of the following disease severity criteria apply:</p> <ul style="list-style-type: none"> • the psoriasis is extensive [defined as body surface area (BSA) > 10% or Psoriasis Area and Severity Index (PASI) ≥ 10] • the psoriasis is severe at localized sites and associated with significant functional impairment and/or high levels of distress (for example nail disease or involvement of high-impact and difficult-to-treat sites such as the face, scalp, palms, soles, flexures and genitals). <p>These criteria do extend to additional (small) subsets of people with psoriasis currently not covered by the NICE criteria for biologic therapy and were introduced due the limitations of the PASI disease severity tool (i.e. it is strongly dependent on body surface area affected, and for some people with localised disease at high-need sites the PASI will not reach 10) and the specific burden (and limited options) for people with disease in both compartments (skin and joint).</p> <p>Generally, therapy is stopped when:</p>

	<ul style="list-style-type: none"> • the minimal response criteria are not met, either initially or further down the line (i.e. secondary failure) • adverse effects arise, e.g. development of neurological symptoms suggestive of demyelinating disease, or new/worsening pre-existing heart failure • the risks outweigh the benefits in a) pregnant females or females planning conception and b) people undergoing elective surgery • live vaccines need to be administered
<p>15. Do you consider that the use of the technology will result in any substantial health-related benefits that are unlikely to be included in the quality-adjusted life year (QALY) calculation?</p>	<p>The calculation of the QALY does not encompass time off work or other limitations that psoriasis imposes (e.g. social isolation, avoidance of relationships, stigma, depression, anxiety). Furthermore, the DLQI is often mapped to EQ5D but whilst important, the DLQI doesn't capture anxiety and depression (which are common in psoriasis); we also know that the mapping algorithms are not necessarily accurate (<i>paper submitted for publication using EQ5D and DLQI data from pharmacovigilance registry BADBIR</i>)</p>
<p>16. Do you consider the technology to be innovative in its potential to make a significant and substantial impact on health-related benefits and how might it</p>	<p>This is the first IL17 receptor antagonist, although two anti-IL-17A monoclonal antibodies have been NICE-approved (secukinumab and ixekizumab).</p>

improve the way that current need is met?	
<ul style="list-style-type: none"> Is the technology a 'step-change' in the management of the condition? 	Antagonism of the IL17 pathway represent a step-change in the management of people with moderate-to-severe psoriasis.
<ul style="list-style-type: none"> Does the use of the technology address any particular unmet need of the patient population? 	Please see response in Q8 above.
17. How do any side effects or adverse effects of the technology affect the management of the condition and the patient's quality of life?	Mild candida infection has been reported with IL17 inhibition; infections and rare adverse effects are comparable to those seen with other biologic therapies generally. Brodalumab seems to have a comparable safety profile with other IL17 inhibitors and biologic therapies in general.
Sources of evidence	
18. Do the clinical trials on the technology reflect current UK clinical practice?	Yes.

<ul style="list-style-type: none"> If not, how could the results be extrapolated to the UK setting? 	<p>N/A</p>
<ul style="list-style-type: none"> What, in your view, are the most important outcomes, and were they measured in the trials? 	<ul style="list-style-type: none"> Psoriasis symptoms on the face, scalp, nails: Plus, other high-need sites, i.e. hands and feet, flexural/genital psoriasis. Response rate: Over what time period? It would be important to include longer treatment outcomes, i.e. 1 year, 2 years. Relapse rate: over what time period? It would be important to include longer treatment outcomes, i.e. 1 year, 2 years. Adverse effects of treatment: specifically, also candida infection; separate out adverse effects in the very short term, e.g. during loading doses. Health-related quality of life (including dermatology quality of life index [DLQI]): Include other measures of impact, i.e. depression, anxiety; and impact on psoriatic arthritis.
<ul style="list-style-type: none"> If surrogate outcome measures were used, do they adequately predict long-term clinical outcomes? 	<p>See notes above.</p>
<ul style="list-style-type: none"> Are there any adverse effects that were not apparent in clinical trials 	<p>There is very limited information about use of the technology outside clinical trials. It would be extremely important for all people with psoriasis who meet the eligibility criteria to be enrolled in BADBIR when prescribed this agent to</p>

<p>but have come to light subsequently?</p>	<p>ensure we can capture high quality pharmacovigilance data and make relevant comparisons with other biologic agents (N.B. > 12,000 patients now registered – please see www.badbir.org.uk)</p>
<p>19. Are you aware of any relevant evidence that might not be found by a systematic review of the trial evidence?</p>	<p>No.</p>
<p>20. Are you aware of any new evidence for the comparator treatment(s) since the publication of NICE technology appraisal guidance [TAXXX]? [delete if there is no NICE guidance for the comparator(s) and renumber subsequent sections]</p>	<p>No; however, ciclosporin cannot be used for > 1 year and is therefore not a relevant comparator for this STA.</p>
<p>21. How do data on real-world experience compare with the trial data?</p>	<p>Not yet available for this technology.</p>

Equality	
22a. Are there any potential equality issues that should be taken into account when considering this treatment?	<p>The PASI may underestimate disease severity in people with darker skin (type IV-VI) as redness may be less evidence (a key component of the PASI).</p> <p>DLQI will underestimate the impact in people who are not sexually active, or older (retired) or socially isolated; it does not capture anxiety and depression.</p>
22b. Consider whether these issues are different from issues with current care and why.	These are generic issues.
Topic-specific questions	
23 [To be added by technical team at scope sign off. Note that topic-specific questions will be added only if the treatment pathway or likely use of the technology remains uncertain after scoping consultation, for example if there were differences in	

opinion; this is not expected to
be required for every
appraisal.]

**if there are none delete
highlighted rows and
renumber below**

Key messages

24. In up to 5 bullet points, please summarise the key messages of your submission.

- Important new technology
- High efficacy rates
- Existing therapies, while effective for many, do not work for *all* those requiring treatment
- NICE criteria for biologic therapy – if applied here – limit access for people who would benefit (not just applicable to this technology)

Thank you for your time.

Please log in to your NICE Docs account to upload your completed submission.