British Association of Dermatologists guidelines for biologic therapy for psoriasis 2017*


Correspondence
Catherine Smith.
E-mails: catherine.smith@kcl.ac.uk; guidelines@bad.org.uk

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*Plain language summary available online

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Purpose and scope of the guideline

The overall aim of the guideline is to provide evidence-based recommendations on the use of biologic therapies (adalimumab, etanercept, infliximab, ixekizumab, secukinumab and ustekinumab) in adults, children and young people for the treatment of psoriasis; consideration is given to the specific needs of people with psoriasis and psoriatic arthritis. Biologic therapies have now been in use for over 10 years, and with accrued patient-year exposure and clinical experience, many areas that were covered in previous versions of the guideline are now part of the summary of product characteristics (SPC) and/or routine care so that specific recommendations are redundant. Therefore, in this update we focus on areas where there has been a major change in the evidence base or clinical practice, where practice is very varied and/or where clear recommendations are lacking.

This set of guidelines has been developed using the British Association of Dermatologists (BAD) recommended methodology1 with reference to the Appraisal of Guidelines Research and Evaluation (AGREE II) instrument (www.agreetrust.org)2 and the Grading of Recommendations Assessment, Development and Evaluation (GRADE).3 The recommendations were developed for implementation in the National Health Service (NHS) in the U.K. Note that the guideline recommendations will normally fall within licensed indications; exceptionally, and only if clearly supported by evidence, use outside a licensed indication may be recommended. The guideline assumes that prescribers cross-reference a drug’s SPC to inform clinical decision making for individual patients. Where relevant, this guidance applies to biosimilars (similar biological medical products), subject to recommendations given within the BAD position statement4 and the European Medicines Agency guidelines.5 This guidance does not cover agents licensed outside the U.K. or use of biologic therapies for indications other than psoriasis or use when psoriatic arthritis is the main indication.

Summary of recommendations

These evidence- and consensus-based (GPP, good practice point) recommendations should be considered in the context of the individual needs of the patient, with cross-reference to the relevant drug’s SPC and the Implementation Toolkit (File


**Using biologic therapy**

**R1** (↕️↑️) Initiation and supervision of biologic therapy for people with psoriasis should be undertaken by specialist physicians experienced in the diagnosis and treatment of psoriasis. Routine monitoring may be delegated to other healthcare professionals, e.g. clinical nurse specialists. Manage psoriatic arthritis and/or multimorbidity in consultation with the relevant healthcare professionals.

**R2** (↕️↑️) Agree and formalize arrangements for drug administration, monitoring and follow-up between health carers and the person receiving treatment.

**R3** (↕️↑️) Offer people with psoriasis who are starting biologic therapy the opportunity to participate in long-term safety registries (BADDIR in the U.K. and Republic of Ireland; http://www.badbir.org).

**Criteria for biologic therapy**

**R4** (↕️↑️) 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)⁶ 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:

- the psoriasis is severe at localized sites and associated with significant functional impairment and/or high levels of distress (e.g. nail disease or involvement of high-impact and difficult-to-treat sites such as the face, scalp, palms, soles, flexures and genitals).

**R5** (↕️↑️) Consider biologic therapy earlier in the treatment pathway (e.g. if methotrexate has failed, is not tolerated or is contraindicated) in people with psoriasis who fulfil the disease severity criteria and who also have active psoriatic arthritis⁷ or who have psoriasis that is persistent, i.e. that relapses rapidly (defined as >50% baseline disease severity within 3 months of completion of any treatment) off a therapy that cannot be continued in the long-term (e.g. narrow-band ultraviolet B).

**Prescribing biologic therapy**

**R6** (↕️↑️) Be aware of the benefits of, contraindications to and adverse effects associated with biologic therapies and reference the drug-specific SPCs (www.medicines.org.uk/emc).

**R7** (↕️↑️) Provide high-quality, evidence-based information to people being prescribed biologic therapies. Explain the risks and benefits to people undergoing this treatment (and their families or carers where appropriate), using absolute risks and natural frequencies when possible (File S1: Table S2 – decision aid; see Supporting Information). Allow them adequate time to consider the information.

**R8** (↕️↑️) Support and advice should be offered to people with psoriasis (and their families or carers where appropriate) by healthcare professionals who are trained and competent in the use of biologic therapies.

**Reviewing biologic therapy**

**R9** (↕️↑️) Assess initial response to biologic therapy in people with psoriasis at time points appropriate for the drug in question, and then on a regular basis during therapy (e.g. every 6 months).

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**Table 1 Strength of recommendation ratings**

<table>
<thead>
<tr>
<th>Strength</th>
<th>Wording</th>
<th>Symbols</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong recommendation for use of an intervention</td>
<td>‘Offer’ (or similar, e.g. ‘provide’, ‘advise’, ‘screen’)</td>
<td>↑️↑️</td>
<td>Benefits of the intervention outweigh the risks; most patients would choose the intervention while only a small proportion would not; for clinicians, most of their patients would receive the intervention; for policy makers, it would be a useful performance indicator</td>
</tr>
<tr>
<td>Weak recommendation for use of an intervention</td>
<td>‘Consider’</td>
<td>↑️</td>
<td>Risks and benefits of the intervention are finely balanced; many patients would choose the intervention but many would not; clinicians would need to consider the pros and cons for the patient in the context of the evidence; for policy makers, it would be a poor performance indicator where variablity in practice is expected</td>
</tr>
<tr>
<td>No recommendation</td>
<td>‘Do not offer’</td>
<td>Θ</td>
<td>Insufficient evidence to support any recommendation</td>
</tr>
<tr>
<td>Strong recommendation against use of an intervention</td>
<td></td>
<td>↓️↓️</td>
<td>Risks of the intervention outweigh the benefits; most patients would not choose the intervention while only a small proportion would; for clinicians, most of their patients would not receive the intervention</td>
</tr>
</tbody>
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R10 (↑↑) Review response to biologic therapy by taking into account:
- psoriasis disease severity compared with baseline (e.g. PASI baseline to end point score)\(^8\)
- the agreed treatment goal
- control of psoriatic arthritis disease activity and/or inflammatory bowel disease (in consultation with a rheumatologist and/or gastroenterologist)
- the impact of psoriasis on the person’s physical, psychological and social functioning
- the benefits vs. the risks of continued treatment
- the views of the person undergoing treatment (and their family or carers, where appropriate)
- adherence to the treatment.

R11 (↑) Assess whether the minimal response criteria have been met, as defined by:
- \(\geq 50\%\) reduction in baseline disease severity (e.g. PASI 50 response, or percentage BSA where PASI is not applicable) and
- clinically relevant improvement in physical, psychological or social functioning (e.g. \(\geq 4\)-point improvement in DLQI or resolution of low mood).

R12 (↑) Consider changing to an alternative therapy, including another biologic therapy, if any of the following applies:
- the psoriasis does not achieve the minimum response criteria (primary failure – see R11)
- the psoriasis initially responds but subsequently loses this response (secondary failure)
- the current biologic therapy cannot be tolerated or becomes contraindicated.

Choice of biologic therapy: general considerations

R13 (↑↑) Take into account both psoriasis and psoriatic arthritis before initiating or making changes to biologic therapy, and:
- manage treatment in consultation with a rheumatologist or paediatric rheumatologist
- be aware that the presence of and phenotype of psoriatic arthritis (e.g. peripheral vs. axial disease) may influence access to, choice of and dose of biologic therapy.

R14 (↑↑) Tailor the choice of agent to the needs of the person and take into account the following factors (File S1: Table S2 – decision aid; see Supporting Information):

Psoriasis factors
- the goal of therapy [e.g. Physician’s Global Assessment (PGA) of clear or nearly clear]
- disease phenotype and pattern of activity
- disease severity and impact
- the presence of psoriatic arthritis (in consultation with an adult or paediatric rheumatologist)
- outcomes of previous treatments for psoriasis.

Other factors
- person’s age
- past or current comorbid conditions (e.g. inflammatory bowel disease, cardiovascular disease)
- conception plans
- body weight
- the person’s views and any stated preference on administration route or frequency
- adherence.

R15 (↑↑) Be aware that the recommended first-line choice of biologic therapy will not be appropriate for every individual; use the decision aid and reference to R14 to inform the choice of alternative licensed biologic therapies.

Choice of biologic therapy in adults: first line

R16 (↑↑) Offer ustekinumab as a first-line biologic agent to adults with psoriasis who fulfil the criteria for biologic therapy (see also R4 and R5).

R17 (↑↑) Offer adalimumab as a first-line biologic agent to adults with psoriasis particularly when psoriatic arthropathy is a consideration.

R18 (↑) Consider secukinumab as a first-line biologic agent in adults with psoriasis, with or without psoriatic arthritis.

Choice of biologic therapy in adults: second line

R19 (↑↑) Offer any of the currently licensed biologic therapies when psoriasis has not responded to a first biologic therapy. Use the decision aid (File S1: Table S2 - decision aid; see Supporting Information) and take into account all factors detailed in R14 to select the most appropriate agent.

Other considerations

R20 (↑↑) Reserve infliximab for use in people with very severe disease or where other available biologic agents have failed or cannot be used.\(^6\)

What to do when a second or subsequent biologic therapy fails in adults

R21 (↑) When a person’s psoriasis responds inadequately to a second or subsequent biologic agent seek advice from a clinician with expertise in biologic therapy and consider any of the following strategies:
- reiterate advice about modifiable factors contributing to poor response (e.g. obesity and poor adherence)
- optimize adjunctive therapy (e.g. switch from oral to subcutaneous methotrexate)
- switch to an alternative biologic agent
• Consider nonbiologic therapy approaches (e.g. inpatient topical therapy, phototherapy or standard systemic therapy).

When to consider dose escalation

R22 (†) Consider escalating the dose of biologic therapy in adults where this is feasible and funded (see table below) and when an inadequate primary response may be due to insufficient drug dosing (e.g. in people who are obese or whose psoriasis relapses during the treatment cycle). Take into account that this may be associated with an increased risk of infection, and, depending on the drug (e.g. ustekinumab and infliximab), off-licence.

<table>
<thead>
<tr>
<th>Biologic agent</th>
<th>Suggested dose-escalation strategy</th>
</tr>
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<tbody>
<tr>
<td>Ustekinumab 45 mg every 12 weeks (&lt; 100 kg)</td>
<td>Ustekinumab 90 mg every 12 weeks (&lt; 100 kg)</td>
</tr>
<tr>
<td>Ustekinumab 90 mg every 12 weeks (&gt; 100 kg)</td>
<td>Ustekinumab 90 mg every 8 weeks (&gt; 100 kg)</td>
</tr>
<tr>
<td>Adalimumab 40 mg every other week</td>
<td>Adalimumab 40 mg weekly</td>
</tr>
<tr>
<td>Etanercept 50 mg once weekly</td>
<td>Etanercept 50 mg twice weekly</td>
</tr>
<tr>
<td>Infliximab 5 mg kg⁻¹ every 8 weeks</td>
<td>Infliximab 5 mg kg⁻¹ every 6 weeks</td>
</tr>
</tbody>
</table>

Choice of biologic therapy in children and young people

R23 (↑↑) Offer adalimumab (age ≥ 4 years), etanercept (≥ 6 years) or ustekinumab (≥ 12 years) to children and young people who fulfil the criteria for biologic therapy (see also R4 and R5).

R24 (↑) When a child’s or young person’s psoriasis responds inadequately to a first or subsequent biologic agent seek advice from a clinician with expertise in biologic therapy and consider any of the following strategies:
- reiterate advice about modifiable factors contributing to poor response (e.g. obesity and poor adherence)
- optimize adjunctive therapy (e.g. switch from oral to subcutaneous methotrexate)
- switch to an alternative biologic agent
- consider nonbiologic therapeutic approaches (e.g. inpatient topical therapy or standard systemic therapy).

Transitioning to or between biologic therapies

R25 (↑↑) When choosing the transitioning strategy from one drug therapy to another and whether a therapy washout (or no washout) should be used, take into consideration:
- the pharmacology of the drugs that are being started and stopped (File S1: Table S1 – summary of licensed indications and posology for biologic therapy; see Supporting Information)
- the person’s clinical circumstances
- the person’s views on the risks and benefits of transitioning option(s).

R26 (↑) Consider the following strategies when transitioning from standard systemic to biologic therapy:
- in stable disease, aim to allow 1 month to elapse between the last dose of any current standard systemic immunosuppressant psoriasis therapy (except methotrexate) and the planned date of biologic initiation
- start a biologic therapy with no drug washout period in people taking methotrexate, or in people on other therapies where this would lead to unstable disease
- when standard, systemic immunosuppressant therapy cannot be stopped (e.g. in people for whom a disease flare would be severe or hazardous), rationalize use of therapy and stop as soon as possible (e.g. when a minimum response has been achieved).

R27 (↑) When transitioning to a new biologic therapy (from a previous biologic therapy) consider using a 1-month washout period, or the length of the treatment cycle (whichever is longer), between the last dose of the current biologic therapy and the planned date of biologic initiation.

Algorithm

See Figure 1.

Conception and pregnancy

R28 (↑↑) Provide information about the possible effects of biologic therapy during conception and pregnancy, including
- the importance of controlling severe or unstable psoriasis to maintain maternal health
- that most pregnancies reported in women taking biologic therapy at conception and during pregnancy have successful outcomes
- that evidence about the effect of biologic therapy on conception and pregnancy mostly relates to tumour necrosis factor (TNF) antagonists in women with rheumatological and inflammatory bowel disease; this evidence indicates a potential risk associated with exposure to TNF antagonists but is of low quality, and may relate to other factors (e.g. other cotherapies or the underlying disease).
- that the risk of fetal abnormalities in women with psoriasis who conceive on biologic therapy has not been adequately studied and therefore cannot be quantified
- that maternal IgG, and therefore biologic drugs currently licensed for psoriasis, is actively transferred to the developing fetus during the second and third trimester and that the impact of this on fetal and neonatal development and risk of infection have not been adequately studied.
that live vaccines must be avoided in infants born to mothers taking biologic therapy beyond 16 weeks’ gestation
• relevant patient information resources.¹⁹

R²⁹ (↑) Advise women of childbearing potential who are starting biologic therapy for psoriasis to use effective contraception and discuss conception plans with the consultant supervising their care (see R³⁰). There are no known interactions between biologic therapies and contraceptive methods (see drug-specific SPCs).

R³⁰ (↑↑) Discuss the risks and benefits of continuing vs. stopping biologic therapy with women who are of childbearing potential or who become pregnant. Offer advice on a case-by-case basis by taking into account the woman’s views and
• the course of psoriasis disease and the fetal outcome during any prior pregnancies
• the risk of severe or unstable psoriasis if the biologic therapy were stopped

Fig 1. Pathway algorithm to guide choice of biologic therapy in adults with psoriasis. This guidance applies to biosimilars, subject to recommendations given within the British Association of Dermatologists position statement and European Medicines Agency guidelines.₄ ₅

¹Take into account psoriasis factors (the goal of therapy, e.g. Physician’s Global Assessment clear or nearly clear; disease phenotype and pattern of activity; disease severity and impact; presence of psoriatic arthritis; outcomes of previous treatment for psoriasis) and other factors (age; past or current comorbid conditions; conception plans; body weight). ²Take into account both psoriasis and psoriatic arthritis before initiating or making changes to biologic therapy, and manage treatment in consultation with a rheumatologist; be aware that the presence of and phenotype of psoriatic arthritis (e.g. peripheral vs. axial disease) may influence access to, choice of and dose of biologic therapy. ³Consider changing to an alternative biologic therapy if any of the following applies: the psoriasis does not achieve the minimum response criteria (primary failure: see R¹¹) or the psoriasis initially responds but subsequently loses this response (secondary failure). ⁴Consider escalating the dose of biologic therapy in adults (R²²) when an inadequate primary response may be due to insufficient drug dosing (e.g. in people who are obese or whose psoriasis relapses during the treatment cycle). Take into account that dose escalation may be associated with an increased risk of infection, and, depending on the drug, it may be off-licence and not funded. Currently, a dose-escalation strategy is not applicable to secukinumab or ixekizumab.
the physical, psychological and social functioning if the biologic therapy were stopped
the options for alternative, nonbiologic treatment strategies.

R31 (++) Assess whether biologic therapy for psoriasis can be stopped in women who become pregnant. Ensure consultation and information sharing across specialities including with an obstetrician who has expertise in caring for pregnant women with medical problems. Collect pregnancy outcome data for safety registries, e.g. BADBIR in the U.K. and Republic of Ireland.

R32 (++) Advise mothers who have received biologic therapy for psoriasis beyond 16 weeks’ gestation that their infants should not receive any live vaccinations until they have reached 6 months of age (e.g. rotavirus and BCG).

Biologic therapy and cancer risk

R33 (++) Assess people with psoriasis prior to, and during treatment with, biologic therapy with respect to

- their past or current history of cancer (see R35) and/or
- any future risk of cancer.

R34 (++) Provide information to people with psoriasis about the importance of participating in national cancer screening programme.

R35 (++) Exercise caution and discuss with the relevant cancer specialist when prescribing biologics in people with psoriasis and

- a history of cancer, particularly if this has been diagnosed and treated < 5 years previously and/or
- where the baseline risk of skin cancer is increased (e.g. previously treated nonmelanoma skin cancer).

Biologic therapy and infections

R36 (++) Assess people with psoriasis prior to, and during treatment with, biologic therapy with respect to

- risk factors for infection (e.g. comorbidities, cotherapy, lifestyle and travel)
- known infections (past or current)
- signs or symptoms suggestive of infection.

Biologic therapy and chronic viral infections: hepatitis B, hepatitis C and HIV

R37 (++) Test for infection with hepatitis B (surface antigen and core antibody), hepatitis C (IgG) and HIV (HIV-1 and HIV-2 antibodies and HIV-1 antigen) in people starting biologic therapy.

R38 (++) Consider ongoing screening (e.g. annually) for hepatitis B, hepatitis C and HIV, particularly in people who belong to a group at increased risk of infection [File S1 section S4 – groups at increased risk of tuberculosis (TB), hepatitis B, hepatitis C and HIV; see Supporting Information].

R39 (++) Retest for viral hepatitis in any person who develops unexplained transaminitis (raised alanine aminotransferase and/or aspartate aminotransferase); retest for HIV infection in any person who has symptoms of HIV seroconversion.

R40 (++) Consult a hepatitis specialist when treating all people with biologic therapy who have hepatitis B or C infection, whether newly diagnosed or previously known.

R41 (++) Provide treatment options to people with psoriasis who are HIV seropositive on a case-by-case basis; be aware that severe psoriasis can occur in people with uncontrolled HIV infection. Involve relevant specialists and ensure HIV viral load is suppressed on antiretroviral therapy before considering biologic therapy.

R42 (GPP) Test for varicella zoster (VZ) virus antibody in people with a negative or uncertain history for chickenpox; consider varicella vaccination in those who are not varicella immune and seek expert advice. Be aware of the indications for using VZ immunoglobulin in VZ-susceptible individuals.

Use of biologic therapy and TB

R43 (++) Screen for latent TB with an interferon-γ release assay. Arrange a plain chest radiograph to rule out abnormalities at baseline including granulomas indicative of prior infection and other confounding lung diseases. If positive, assess for active TB and/or management of latent TB in consultation with a TB specialist (see NICE TB guidance).

R44 (++) In people who require treatment for latent TB [3 months of isoniazid (with pyridoxine) and rifampicin, or 6 months of isoniazid (with pyridoxine)] aim to complete 2 months of treatment before commencing biologic therapy.

R45 (++) Any symptoms or signs suggestive of TB, or new exposure to TB or prolonged residence in a high-incidence setting should prompt further clinical assessment and investigation, including a repeat interferon-gamma release assay. Be aware that active TB on TNF antagonist therapy is often disseminated and extrapulmonary; symptoms may include unexplained weight loss, night sweats, nonresolving cough, haemoptysis and lymphadenopathy.

R46 (++) Inform people that they should seek medical advice if symptoms of TB develop during or after treatment with a biologic therapy and issue a patient alert card in line with the Medicines and Healthcare Products Regulatory Agency (MHRA) guidance.

Biologics and vaccination

R47 (↓↓↓) Do not give live vaccines to people on biologic therapy or to infants (up to 6 months of age) whose mothers have received biologic therapy beyond 16 weeks’ gestation.
R48 (↑↑) Stop biologic therapy for at least 6 months before giving live vaccines, and for 12 months in the case of shingles (herpes zoster) vaccine. In general, biologic therapy can be started 4 weeks after administration of a live vaccine. Refer to the drug-specific SPC and Green Book (immunisation against infectious disease)\textsuperscript{14} for further information.

R49 (↑↑) Provide people on biologic therapy information on safe use of vaccinations, including which vaccination should be used and which to avoid (see BAD Patient Information Leaflet on immunization, www.bad.org.uk/leaflets, and the Green Book,\textsuperscript{14} with reference to the clinical risk category ‘immunosuppression’).

R50 (↑↑) Where possible, complete all required vaccinations prior to initiation of biologic therapy and review vaccination requirements during therapy with reference to the Green Book\textsuperscript{14} and the clinical risk category ‘immunosuppression’

Important contraindications to biologic therapies (good practice points)

R51 (GPP) Do not use TNF antagonists in people with demyelinating diseases and review alternative interventions in people who have an affected first-degree relative with demyelinating disease.

R52 (GPP) Stop treatment and seek specialist advice if neurological symptoms suggestive of demyelinating disease develop during TNF antagonist therapy. Symptoms include loss or reduction of vision in one eye with painful eye movements; double vision; ascending sensory disturbance and/or weakness; problems with balance, unsteadiness or clumsiness; and altered sensation travelling down the back and sometimes into the limbs when bending the neck forwards (Lhermitte symptom); please see NICE guidance CG186.\textsuperscript{15}

R53 (GPP) Avoid TNF antagonist therapy in people with severe cardiac failure [New York Health Association (NYHA) class III and IV].

R54 (GPP) Assess people with well-compensated (NYHA class I and II) cardiac failure\textsuperscript{16} and consult with a cardiology specialist before using TNF antagonist therapy.

R55 (GPP) Stop TNF antagonist therapy in the event of new or worsening pre-existing heart failure and seek specialist advice.

R56 (GPP) Exercise caution and consult a gastroenterology specialist before using secukinumab or ixekizumab in people with inflammatory bowel disease.

R57 (GPP) In people undergoing elective surgery balance the potential benefit of preventing postoperative infection by stopping biologic therapy against the risk of developing severe or unstable disease. Advise stopping biologic therapy 3–5 times the half-life of the drug in question (File S1: Table S1 – summary of licensed indications and posology for biologic therapy; see Supporting Information) or the length of the treatment cycle (whichever is longer) between the last dose of therapy and the planned surgery. Inform the surgical team that the patient may be at higher risk of infection postoperatively. Restart biologic therapy postoperatively if there is no evidence of infection and wound healing is satisfactory.

Implementation toolkit

To support implementation of the recommendations, a number of documents have been developed (File S1: Implementation Toolkit; see Supporting Information). These comprise a summary of licensed indications and posology for biologic therapy (Table S1); a decision aid, informed by the evidence reviews, to help patients and clinicians choose the appropriate biologic therapy (Table S2); a suggested schedule for screening and monitoring (Table S3) and a list of groups at increased risk of TB, hepatitis B, hepatitis C and HIV (S4). The full version of the guideline is also available online (File S2: Full biologics guideline; see Supporting Information) and includes details on the methodology and six systematic reviews used with appraisal and discussion of the clinical evidence.

Audit standards, data items and data collection methodology

Dermatology teams involved in prescribing biologic interventions should use audit as a tool to monitor their service against national guidelines of care. The aim should be to ensure that the service is high in quality, safe and cost-effective. File S3: Audit standards (see Supporting Information) contains further details.

Stakeholder involvement and peer review

The full version of the guideline was made available to the BAD membership, British Society for Paediatric Dermatology, British Dermatological Nursing Group, Primary Care Dermatological Society, British Society for Paediatric and Adolescent Rheumatology, British Society of Rheumatology, Royal College of Obstetrics and Gynaecology, Psoriasis and Psoriatic Arthritis Alliance, Psoriasis Association and relevant pharmaceutical companies (see Appendix G in File S2 in Supporting Information for the full list of stakeholders), comments from whom were actively considered by the guideline development group. Following further review, the finalized version was peer reviewed by the Clinical Standards Unit of the BAD, made up of the Therapy & Guidelines subcommittee, prior to submission for publication.

Limitations of the guideline

This document has been prepared on behalf of the BAD and is based on the best data available when the document was prepared. It is recognized that under certain conditions it may be necessary to deviate from the guidelines and that the results of future studies may require some of the recommendations herein to be changed. Failure to adhere to these guidelines should not necessarily be considered negligent, nor should adherence to these recommendations constitute a defence against a claim of negligence. Limiting the review to English-language references was a pragmatic decision, but the authors recognize this may exclude some important information published in other languages.
Plans for guideline revision

This 2017 guideline updates the previous version. An annual literature review is planned for this fast-moving subject and the recommendations will be updated where necessary, in line with the BAD’s recommended guideline development methodology.

Acknowledgments

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Clinical Standards Unit

This is an updated guideline prepared for the British Association of Dermatologists (BAD) Clinical Standards Unit, which includes the Therapy & Guidelines subcommittee. Members of the Clinical Standards Unit who have been involved are P.M. McHenry (Chairman, Therapy & Guidelines subcommittee), K. Gibbon (BAD Assistant Honorary Secretary), D.A. Buckley, T.A. Leslie, E.C. Mallon, S. Wakelin, S. Ungureanu, R.Y.P. Hunaschally, M. Cork, G.A. Johnston, J. Natkunarajah, F.S. Worsnop, N. Chiang, G. Petrof, J. Donnelly (British National Formulary), C. Saunders (British Dermatological Nursing Group), A.G. Brain (BAD Scientific Administrator), L.S. Exton (BAD Information Scientist) and M.F. Mohd Mustapa (BAD Clinical Standards Manager).

The multidisciplinary guideline development group comprised medical specialists (consultants in dermatology, paediatric dermatology, rheumatology, virology and obstetric medicine), a clinical nurse specialist, dermatology trainees, two patient representatives and a research team providing technical and methodological support.

Author affiliations

1 St John’s Institute of Dermatology, 2 Department of Infectious Diseases and 11 Women’s Health Academic Centre, Guy’s and St Thomas’ NHS Foundation Trust, London SE1 9RT, U.K.

3 The Dermatology Centre, Salford Royal NHS Foundation Trust, The University of Manchester, Manchester Academic Health Science Centre, Manchester M13 9NT, U.K.

4 British Dermatology Nursing Group representative, Aneurin Bevan Health Board, Wales, U.K.

5 Department of Dermatology, Royal Infirmary of Edinburgh, Edinburgh EH3 9HA, U.K.

6 British Society for Rheumatology, Chapel Allerton Hospital, Leeds LS7 4SA, U.K.

7 Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford, Oxford OX3 7LD, U.K.

8 National Guideline Centre, Royal College of Physicians, London NW1 4LE, U.K.

9 Patient representatives

10 Department of Dermatology, Sheffield Teaching Hospitals NHS Foundation Trust, Sheffield S10 2JF, U.K.

12 Department of Dermatology, East Lancashire Hospitals NHS Trust, Burnley BB10 2PQ, U.K.

13 Department of Dermatology, Royal Liverpool and Broadgreen University Hospitals NHS Trust, Liverpool L7 8XP, U.K.


15 Department of Dermatology, Oxford University Hospitals NHS Foundation Trust, Oxford OX3 7LE, U.K.

16 British Association of Dermatologists, London W1T 5HQ, U.K.


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Conflicts of interest

Details of declarations of interests (cumulative, throughout the project) can be found in the full version of the guideline (Appendix A in File S2 - see Supporting Information) and are consistent with the NICE Accreditation policy.

References


Supporting Information
Additional Supporting Information may be found in the online version of this article at the publisher’s website:

File S1. Implementation toolkit.

File S2. Full guideline. This includes tables linking evidence to recommendations, details of the network meta-analysis, summary of included studies, forest plots, GRADE evidence profiles, PRISMA flow diagrams, list of excluded studies and search strategies.

File S3. Audit standards.