Assessment and referral
See NICE Pathway
Principles of Care
♦ Provide a single point of contact for people with all types of psoriasis (and their families/carers) to access appropriate information and advice about their condition and the services available at each stage of the care pathway.

See NICE Pathway: Psoriasis
Assessment and referral
♦ For all people with psoriasis assess:
  - disease severity,
  - the impact of disease on physical, psychological and social wellbeing,
  - whether they have psoriatic arthritis,
  - the presence of comorbidities.
♦ Assess disease severity in any healthcare setting by recording:
  - results of a static Physician’s Global Assessment,
  - the patient's assessment of their condition e.g. using the static Patient's Global Assessment,
  - body surface area affected,
  - any involvement of the nails and of high impact or difficult to treat sites (e.g. face, flexures, genitalia, scalp, palms and soles).
♦ In specialist settings do additional assessments e.g. Psoriasis Area and Severity Index (PASI) and the Nail Psoriasis Severity Index.
♦ To assess the physical, psychological and social impact of psoriasis ask the person:
  - what aspects of daily living are affected,
  - how they are coping and any treatments they are using,
  - if they need further advice or support,
  - if psoriasis has an impact on their mood or causes distress,
  - if their condition has any impact on their family/carers.
♦ Ask children and young people age-appropriate questions.
♦ Use a validated assessment tool e.g. Dermatology Life Quality Index (DLQI) or Children’s Dermatology Life Quality Index.

When to refer
♦ Children and young people; refer to a specialist at presentation.
♦ Adults; following assessment in a non-specialist setting, refer people for dermatology specialist advice if:
  - there is diagnostic uncertainty, OR
  - psoriasis is severe (as defined on the static Physician’s Global Assessment) or extensive e.g. >10% body surface area affected, OR
  - psoriasis cannot be controlled with topical therapy, OR
  - acute guttate psoriasis requires phototherapy, OR
  - nail disease has a major functional/cosmetic impact, OR
  - psoriasis is having a major impact on a person's physical, psychological or social wellbeing.
♦ People with generalised pustular psoriasis or erythroderma should be referred immediately for same-day specialist assessment and treatment.

Assessment and referral for psoriatic arthritis – see full guideline

Identification of co-morbidities
♦ In people with severe psoriasis offer a cardiovascular risk assessment at presentation using a validated risk assessment tool. Repeat every 5 years or more frequently if indicated.
♦ Discuss risk factors for cardiovascular comorbidities with all people with psoriasis (and their families/carers) and give lifestyle advice as appropriate.
♦ Psoriasis of any type, especially if severe, is a risk factor for venous thromboembolism in adults. Explain the risks, how to minimise and manage them as per NICE CG92.

Treatment and management
First-line – active topical treatments e.g. corticosteroids, vitamin D and vitamin D analogues, coal tar, dithranol.
Second-line – phototherapy or systemic non-biological treatments.
Third-line – systemic biological treatments.
♦ Give first and second or third-line treatment options at the same time if topical therapy alone is unlikely to adequately control psoriasis:
  - in extensive disease (>10% body surface area), OR
  - if there is a score of at least ‘moderate’ on the static Physician’s Global Assessment, OR
  - topical therapy is ineffective e.g. nail disease.

Active topical treatments
♦ Offer topical treatments, taking into account patient preference, cosmetic acceptability, practicalities of application and the site(s) and extent of psoriasis.
♦ Discuss the variety of formulations available and use:
  - cream, lotion or gel for widespread psoriasis,
  - lotion, solution or gel for the scalp or hair-bearing areas,
  - ointment to treat areas with thick adherent scale.
♦ Support people to adhere to treatment. See NICE CG76.
♦ In people whose psoriasis has not responded satisfactorily to a topical treatment, before changing to an alternative treatment discuss:
  - whether they have any difficulties with application, cosmetic acceptability or tolerability and offer an alternative formulation if appropriate,
  - other possible reasons for non-adherence.
♦ Arrange a review appointment after starting a new topical treatment after 4 weeks in adults, two weeks in children.
♦ Give people a supply of topical treatment to keep at home for self-management of their condition.
Psoriasis continued..............

**Table 1. Choice of topical treatments for psoriasis**

<table>
<thead>
<tr>
<th>Trunk and limbs</th>
<th>Scalp</th>
<th>Face, flexures and genitals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Children and young people</strong></td>
<td><strong>Adults</strong></td>
<td><strong>Face, flexures and genitals</strong></td>
</tr>
<tr>
<td>♦ Consider either calcipotriol applied once daily if &gt;6 years old, OR, a <strong>potent</strong> corticosteroid once daily if &lt;1 year old</td>
<td>♦ Follow treatment steps for adults</td>
<td>♦ Give a short-term <strong>mild or moderate potency</strong> corticosteroid U applied once or twice daily</td>
</tr>
<tr>
<td>♦ Give a <strong>potent</strong> corticosteroid applied once daily AND topical vitamin D or vitamin D analogue once daily for up to 4 weeks. Apply separately, one in the morning and the other in the evening</td>
<td>♦ Give a <strong>potent</strong> corticosteroid (U age &lt;1 year) applied once daily for up to 4 weeks See BNFC for use in children.</td>
<td>♦ Give a short-term <strong>mild or moderate potency</strong> corticosteroid U applied once or twice daily for a maximum of two weeks</td>
</tr>
<tr>
<td>If the above treatment does not result in clearance, near clearance, or satisfactory control after a maximum 8 weeks</td>
<td>If the above treatment does not result in clearance, near clearance, or satisfactory control after 4 weeks</td>
<td>If response to the above treatment is unsatisfactory or continuous treatment is needed to maintain control and there is a serious risk of adverse effects</td>
</tr>
<tr>
<td>♦ Give monotherapy with topical vitamin D or vitamin D analogue twice daily</td>
<td>♦ Consider a different formulation of the <strong>potent</strong> corticosteroid e.g. shampoo or mousse AND/OR</td>
<td>♦ Give a calcineurin inhibitor e.g. topical tacrolimus or pimecrolimus U twice daily for up to 4 weeks initiated by a healthcare professional with expertise in treating psoriasis</td>
</tr>
<tr>
<td>If the above cannot be used or a once daily preparation would improve adherence</td>
<td>If the above treatment (for up to 8 weeks) does not result in clearance, near clearance or satisfactory control</td>
<td></td>
</tr>
<tr>
<td>♦ Give a <strong>potent</strong> corticosteroid applied twice daily for up to 4 weeks, OR</td>
<td>♦ Give a combined product containing calcipotriol monohydrate and betamethasone dipropionate (U children and young people) applied once daily for up to 4 weeks, OR</td>
<td>♦ Give a <strong>very potent</strong> corticosteroid applied up to twice daily for 2 weeks (adults only), OR</td>
</tr>
<tr>
<td>♦ A coal tar preparation applied once or twice daily</td>
<td>♦ Topical vitamin D or vitamin D analogue applied once daily (only in those who cannot use corticosteroids and with mild to moderate scalp psoriasis). See BNFC for use in children</td>
<td>♦ A coal tar preparation applied once or twice daily. OR</td>
</tr>
<tr>
<td>♦ Only offer treatment with very potent corticosteroids in adults:</td>
<td>♦ Refer to a specialist</td>
<td>♦ Take into account that topical agents used on the face, flexures or genitals can cause irritation. Inform people of risks and how to minimise them</td>
</tr>
<tr>
<td>➢ in specialist settings under careful supervision,</td>
<td>➢ in children/young people,</td>
<td></td>
</tr>
<tr>
<td>➢ when other topical treatments have failed,</td>
<td>➢ continuously at any site for &gt;4 weeks,</td>
<td></td>
</tr>
<tr>
<td>➢ for a maximum period of 4 weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>➢ For treatment-resistant psoriasis consider short-contact dithranol. Give support for self-use or ensure treatment is given in specialist setting</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*See BNFC for list of topical corticosteroid preparation potencies.

**Safe use of topical corticosteroids**

**Prescribing**

- Intermittent or short courses of **potent/very potent** corticosteroids:
  - Select the potency and formulation based on patient need.
  - Do NOT use **potent/very potent** corticosteroids on face, flexures or genitalia.
  - Do NOT use **potent** corticosteroids continuously at any site for >8 weeks.
  - Do NOT use **very potent** corticosteroids:
    - in children/young people,
    - continuously at any site for >4 weeks.
  - Aim for a break of 4 weeks between courses of treatment.
  - Review annually:
    - for adults using **potent/very potent** corticosteroids,
    - children/young people using corticosteroids of any potency.
  - Advise people with psoriasis that continuous use of **potent/very potent** topical corticosteroids may cause:
    - irreversible skin atrophy and striae,
    - psoriasis to become unstable,
    - systemic adverse effects when applied continuously to extensive psoriasis e.g. >10% body surface area.
  - Explain the risks of these adverse effects and how to avoid them.
  - Explain that the face, flexures and genitals are particularly vulnerable to steroid atrophy. Topical corticosteroids should only be used short-term at these sites i.e. 1 to 2 weeks per month.

**Counselling**

- Do NOT offer coal tar-based shampoos alone for the treatment of severe scalp psoriasis.

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*a* in children and young people use calcipotriol as calcitriol and tacalcitol are unlicensed in this age group.

**U** unlicensed indication. Obtain and document informed consent.
Phototherapy

- Offer narrowband ultraviolet B (UVB) phototherapy to people with plaque or guttate-pattern psoriasis that cannot be controlled with topical treatments alone.
- Give three or two times a week depending on patient preference. Tell people that a response may be achieved more quickly with treatment three times a week.
- Consider psoralen U (oral or topical) with local ultraviolet A (PUVA) irradiation to treat palmoplantar pustulosis.
- When considering PUVA treatment discuss with the person:
  - other treatment options,
  - that any exposure is associated with an increased risk of skin cancer (squamous cell carcinoma) – see full guideline for how to minimise risk.
  - that subsequent use of ciclosporin may increase the risk of skin cancer, particularly if they have already received >150 PUVA treatments.
  - that risk of skin cancer is related to the number of PUVA treatments.
- Do NOT routinely offer co-therapy with acitretin when administering PUVA.
- Do NOT routinely use phototherapy as maintenance therapy.

Systemic non-biological therapy

- Responsibility for use of systemic therapy should be in specialist settings only. Certain aspects of supervision and monitoring may be delegated to other healthcare professionals in non-specialist settings, in which case, such arrangements should be formalised.
- When offering systemic therapy, tailor the choice of agent and dosing schedule to the needs of the individual and include consideration of:
  - age,
  - disease phenotype, pattern of activity and previous treatment history,
  - disease severity and impact,
  - the presence of psoriatic arthritis,
  - conception plans,
  - comorbidities,
  - the person's views.
- Explain the risks and benefits to people undergoing this treatment (and their families/careers) using absolute risks and natural frequencies when possible. See appendix B.
- Support and advice should be provided by healthcare professionals who are trained and competent in the use of systemic therapies.
- Offer systemic non-biological therapy if psoriasis:
  - cannot be controlled with topical therapy, AND
  - has a significant impact on physical, psychological or social wellbeing, AND
  - one or more of the following apply:
    - psoriasis is extensive (e.g. >10% body surface area affected or a PASI score >10), OR
    - psoriasis is localised and associated with significant functional impairment and/or high levels of distress (e.g. severe nail disease or involvement at high-impact sites), OR
    - phototherapy has been ineffective, cannot be used or has resulted in rapid relapse (rapid relapse is defined as >50% of baseline disease severity within 3 months).
  - use incremental dosing (e.g. starting dose 5 to 10mg once a week then gradual increase to an effective dose. Maximum dose 25mg a week.
  - Assess treatment response after 3 months at the target dose of methotrexate. Stop treatment if response is inadequate.*
  - Use the lowest possible dose to maintain remission.
  - Methotrexate can cause a clinically significant rise in transaminases and long-term therapy may be associated with liver fibrosis. See monitoring.

Monitoring

- Before starting and during methotrexate treatment carry out standard liver function tests and serial serum procollagen III levels to monitor for hepatotoxicity.
- Take into account pre-existing risk factors (e.g. obesity, diabetes, alcohol use), baseline results and trends over time.
- When using serum procollagen III levels to exclude liver fibrosis or cirrhosis, be aware that the:
  - test cannot be used in children and young people,
  - results may be unreliable in people with psoriatic arthritis,
  - estimated positive predictive value is 23–95% and the estimated negative predictive value is 89–100%.
  - Provide advice on modifiable risk factors for liver disease prior to and during therapy, including alcohol intake and weight reduction if appropriate. For more information see NICE PH24; Alcohol-use disorders, NICE CG43; Obesity and NICE PH 6; Behaviour change.
  - Consider referral to a specialist physician in liver disease if liver tests are abnormal.

Ciclosporin

- Use 2.5 to 3mg/kg/day of ciclosporin.
- If no response at this dose or when rapid disease control is necessary (e.g. in severe unstable disease) increase to 5mg/kg/day after 4 weeks.
- Assess treatment response after 3 months at the optimum dose of ciclosporin. Stop treatment if response is inadequate.*
  - Use the lowest possible dose to maintain remission for up to one year.

* <75% decrease in PASI score or <50% decrease in DLQI score and 5 points in DLQI score.

U unlicensed indication. Obtain and document informed consent.
Psoriasis continued

NICE CG153: 2012

Ciclosporin

- Consider other treatment options when disease relapses rapidly on stopping ciclosporin therapy (>50% baseline disease severity within 3 months of stopping treatment).
- Do NOT use ciclosporin continuously for >1 year unless disease is severe or unstable and other treatment options, including systemic biological therapy, cannot be used.

Acitretin

- In adults use incremental dosing to minimise mucocutaneous adverse effects and achieve a target dose of 25mg daily.
- Consider dose escalation to a maximum of 50mg daily when no other treatment options are available.
- Assess treatment response after 4 months at the optimum dose of acitretin. Stop treatment if inadequate response.**
- **Plaque-type psoriasis: <75% decrease in PASI score or <50% decrease in PASI score and <5 points in DLQI score.
- **Pustular forms of psoriasis: not achieving clear or nearly clear on static Physician’s Global Assessment.

Systemic biological treatments

Guidance on use of biological agents in adults with psoriasis comes from the following Technology appraisals:

- NICE TA146: Adalimumab
- NICE TA103: Etanercept
- NICE TA134: Infliximab
- NICE TA 180: Ustekinumab

- Biological agents should be initiated and supervised only by specialist physicians experienced in the diagnosis and treatment of psoriasis.
- If a person has both psoriasis and psoriatic arthritis, take into account both conditions before initiating or making changes to biological therapy and manage their treatment in consultation with a rheumatologist.
- If psoriasis has not responded to standard systemic therapies including ciclosporin, methotrexate and PUVA or the person has a contraindication to, or is intolerant of, these see Table 2 for treatment options.

Changing to an alternative biological drug

- Consider changing to an alternative biological drug in adults if:
  - psoriasis does not respond adequately to a first biological drug (primary failure).*
  - psoriasis initially responds adequately but subsequently loses this response (secondary failure), OR
  - the first biological drug cannot be tolerated or is contraindicated.
  - For adults in whom there is an inadequate response to a second biological drug, seek specialist advice from a clinician with expertise in biological therapy.

Etanercept, infliximab, adalimumab and golimumab in psoriatic arthritis

- Etanercept, infliximab and adalimumab are recommended for the treatment of adults with active and progressive psoriatic arthritis when the following criteria are met:
  - the person has peripheral arthritis with ≥3 tender joints and ≥3 swollen joints, AND
  - the psoriatic arthritis has not responded to adequate trials of at least two standard disease-modifying antirheumatic drugs (DMARDs), administered either individually or in combination.

- Golimumab is recommended for the treatment of adults with active and progressive psoriatic arthritis when the above criteria are met, AND the manufacturer provides the 100mg dose at the same cost as the 50mg dose.

- Treatment should be started with the least expensive drug (taking into account drug administration costs, required dose and product price per dose). This may vary for individual patients because of differences in the method of administration and treatment schedules.

- Treatment should be stopped in people whose psoriatic arthritis has not shown an adequate response using the Psoriatic Arthritis Response Criteria (PsARC) at 12 weeks.

- An adequate response is defined as an improvement in at least two of the four PsARC criteria, (one of which has to be joint tenderness or swelling score) with no worsening in any of the four criteria.

- People whose disease has a PASI 75 response at 12 weeks but whose PsARC response does not justify continuation of treatment should be assessed by a dermatologist to determine whether continuing treatment is appropriate on the basis of skin response. See Table 2.

Table 2: Systemic biological agents

<table>
<thead>
<tr>
<th>Biological</th>
<th>Treatment criteria</th>
<th>Stop treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adalimumab</td>
<td>Severe disease i.e. PASI score ≥10, DLQI score &gt;10 AND psoriasis failed to respond to standard systemic therapies including ciclosporin, methotrexate and PUVA, OR the person has a contraindication to, or is intolerant of, these treatments</td>
<td>If response is not adequate 16 weeks after starting treatment</td>
</tr>
<tr>
<td>Etanercept&lt;sup&gt;*,&lt;sup&gt;†&lt;/sup&gt;&lt;/sup&gt;</td>
<td>psoriasis has failed to respond to standard systemic therapies including ciclosporin, methotrexate and PUVA, OR the person has a contraindication to, or is intolerant of, these treatments</td>
<td>If response is not adequate 12 weeks after starting treatment</td>
</tr>
<tr>
<td>Ustekinumab&lt;sup&gt;*,&lt;sup&gt;‡&lt;/sup&gt;&lt;/sup&gt;</td>
<td>Very severe disease i.e. PASI score ≥20, DLQI score &gt;18 AND psoriasis has failed to respond to standard systemic therapies including ciclosporin, methotrexate and PUVA, OR patient has a contraindication to, or is intolerant of, these treatments</td>
<td>If response is not adequate 10 weeks after starting treatment</td>
</tr>
<tr>
<td>Infliximab</td>
<td></td>
<td>If response is not adequate 16 weeks after starting treatment</td>
</tr>
</tbody>
</table>

<sup>b</sup> see Summary of Product Characteristics for full prescribing information.

<sup>c</sup> an adequate response is defined as: a 75% decrease in PASI score from when treatment started (PASI 75), OR a 50% decrease in PASI score (PASI 50) and a 5 point decrease in DLQI from when treatment started.

<sup>d</sup> for people weighing >100kg the manufacturer should provide 90mg dose (two 45mg vials) at same total cost as a single 45mg vial

<sup>e</sup> within its licensed recommendations at a dose not exceeding 25mg twice weekly.