

Diagnosis and management of mild to moderate psoriasis

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Psoriasis is a common long-term inflammatory skin condition, which when mild or moderate in severity can be managed effectively with topical treatments and lifestyle advice. This article focuses on the management of mild to moderate psoriasis in primary care.

Psoriasis is a genetically determined, systemic, immune-mediated long-term inflammatory condition that affects the skin, nails and joints. Seronegative arthritis occurs in up to a quarter of patients up to 10 years after the skin psoriasis.¹

Psoriasis has a relapsing and remitting nature and affects both sexes equally with an estimated 0.8–2.6% prevalence in the UK.² Studies suggest psoriasis is more common in white people and usually develops during adulthood,^{3,4} although epidemiological data on psoriasis in non-white patients is relatively limited. Genetic factors are important, with around 30% of people with psoriasis having an affected first-degree relative and high concordance in monozygotic twins.⁴ Specific triggers are also associated with disease onset and exacerbations, including: smoking, alcohol, obesity, stress, skin trauma, drugs (including lithium, antimalarials, beta-blockers, antibiotics, ACE inhibitors), infection (HIV, streptococcal infection) and hypocalcaemia. Pregnancy can either improve or worsen disease activity.

Psoriasis is associated with many conditions, including: cardiovascular disease and metabolic syndrome,^{5,6} inflammatory bowel disease,⁷ venous thromboembolism,⁸ impaired health-related quality of life and reduced occupational productivity. It also has a high socioeconomic and psychological impact.^{9,10} While published guidelines on the management of psoriasis exist,^{11,12} this article will focus on adult patients with psoriasis of mild or moderate severity who can be well managed with topical treatments and lifestyle advice available in primary care.

Diagnosis

Psoriasis is usually diagnosed clinically. Chronic plaque psoriasis (psoriasis vulgaris) accounts for 90% of cases,⁴ and there are a number of less common variants, including flexural ('inverse psoriasis'), guttate, palmoplantar pustular, hyperkeratotic hand/foot, and rarely erythrodermic and generalised pustular psoriasis. Nails are affected in around 50% of people with psoriasis, and this is more common in people with psoriatic arthritis. The typical morphology, distribution of plaques, nail changes and differential diagnoses are shown in Table 1.



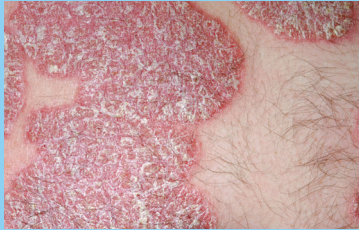



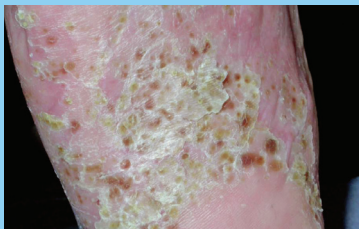

Morphological variant	Clinical features	Distribution of skin changes	Differential diagnosis
<p>Chronic plaque</p> 	<ul style="list-style-type: none"> • Well-defined pink-red plaques with silvery surface scale • Can be small or large in size • May be itchy • Auspitz sign – pinpoint bleeding seen when scales are rubbed off 	<ul style="list-style-type: none"> • Commonly on extensor surfaces or can be generalised • Scalp/ear involvement • Symmetrical 	<ul style="list-style-type: none"> • Seborrhoeic dermatitis, especially when face/ears/scalp affected • Discoid eczema (usually highly pruritic) • If a few or single plaques, consider tinea corporis, Bowen's disease, hypertrophic lichen planus and mycosis fungoides
<p>Flexural*</p> 	<ul style="list-style-type: none"> • Shiny red well-demarcated patches • Lack scale 	<ul style="list-style-type: none"> • Symmetrical • Axillae • Genital/groins • Submammary • Gluteal cleft 	<ul style="list-style-type: none"> • Candidiasis, which may co-exist • Intertrigo • Erythrasma • Contact dermatitis • Tinea incognito • Extramammary Paget's (rare) • Langerhans cell histiocytosis in children (rare)
<p>Guttate*</p> 	<ul style="list-style-type: none"> • Small up to 1cm scaly 'tear drop-like' lesions • Commoner in children/young adults and often triggered by streptococcal upper respiratory tract infection 	<ul style="list-style-type: none"> • Widespread trunk and limbs, often sparing face • Rapid onset 	<ul style="list-style-type: none"> • Secondary syphilis • Pityriasis rosea • Pityriasis lichenoides • Parapsoriasis
<p>Nails*</p> 	<ul style="list-style-type: none"> • Pitting • Onycholysis • Subungual hyperkeratosis • Oil drop 	<ul style="list-style-type: none"> • Changes seen in both hands • May be associated arthritis changes 	<ul style="list-style-type: none"> • Tinea unguium (onychomycosis), which may co-exist with psoriasis • Traumatic nail dystrophy • Lichen planus
<p>Palmoplantar pustular*</p> 	<ul style="list-style-type: none"> • Yellow/cream sterile pustules, which mature into brown macules • More common in smokers 	<ul style="list-style-type: none"> • Palms and soles • Bilateral 	<ul style="list-style-type: none"> • Pompholyx • Tinea pedis (which can be bullous) • Secondarily infected dermatitis

Table 1. Clinical features of psoriasis

Morphological variant	Clinical features	Distribution of skin changes	Differential diagnosis
<p>Hyperkeratotic hand/foot*</p> 	<ul style="list-style-type: none"> Well-demarcated hyperkeratosis 	<ul style="list-style-type: none"> Palms and soles Bilateral 	<ul style="list-style-type: none"> Hyperkeratotic hand eczema Tinea Allergic contact dermatitis Keratoderma

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Table 1. Clinical features of psoriasis (cont.)

A holistic approach to assessment of patients with psoriasis is important and should include:

- **Assessment of psychosocial wellbeing and expectations of treatment.** Specifically, asking about how the psoriasis symptoms are impacting on the person’s mood, functioning and relationships. The Dermatology Quality of Life Index (DLQI)¹³ is a validated questionnaire to measure health-related quality of life, which can support the global assessment. Consider using depression and anxiety screening tools, eg Patient Health Questionnaire-9 (PHQ-9)¹⁴ and Generalized Anxiety Disorder assessment (GAD-7).¹⁵ It is useful to gauge the patient’s goals, for example whether the patient is wanting ‘clear’ skin or is mainly concerned with being able to undertake daily activities, eg swimming.
- **Asking about triggers and exacerbating factors.** This includes smoking, alcohol, stress, skin trauma, medicines (eg lithium, antimalarials, beta-blockers, antibiotics, ACE inhibitors) and infection (HIV, streptococcal infection).
- **Examining the skin for areas affected and disease severity.** This should include examination of scalp, nails and genitals. Disease severity and skin area coverage assessment can be formally assessed using the Psoriasis Area and Severity Index Score (PASI).¹⁶
- **Asking the patient about current or previous treatments tried.** This should include the treatments’ perceived efficacy and ease of use.
- **Assessing for co-morbidities:**

Joints – psoriatic arthritis is often unrecognised,¹⁷ and it is important for clinicians to be aware of the association of psoriasis with psoriatic arthritis. Specific signs of associated inflammatory arthritis may include pain and swelling particularly affecting peripheral joints (knees, ankles), heel pain (enthesitis/plantar fasciitis), dactylitis (sausage digit) and inflammatory back pain (nocturnal pain that improves during the day). Nail changes occur in up to 90% of affected patients.¹¹ Early recognition of suspected inflammatory joint disease and referral to a

rheumatologist is important, so that joint damage can be minimised. Use of the Psoriasis Epidemiology Screening Tool (PEST)¹⁸ is recommended to be undertaken annually, with a score of 3 or more indicating that a rheumatology referral should be considered.

Cardiovascular risk and metabolic syndrome – weight (BMI), blood pressure, smoking and alcohol intake should be assessed annually. Formal cardiovascular risk assessment with lipid profile, using the QRISK assessment tool,¹⁹ should be undertaken every five years, especially in adults with moderate to severe psoriasis.¹¹

Other associated conditions – including symptoms of inflammatory bowel disease and venous thromboembolism.

Management

Topical therapies

Daily use of emollients is recommended for all patients, alongside active topical therapies during a flare. They should be used both as a leave-on treatment (applied directly to the skin) and as a soap substitute to soften scale, improve the skin barrier and relieve discomfort. There are a wide variety of emollients available, which vary in consistency from light (lower oil:water ratio), eg lotions/creams, to heavy (high oil:water ratio), eg ointments. Ointments can be useful when there is thick adherent scale, although warnings around their potential flammability and slip hazard should be given. Patient preference is important for improving adherence with regular emollient use, and large quantities (500g per week for an adult, 250–500g per week for a child) should be prescribed. Although prescribing restrictions for emollients were introduced in England in 2017,^{20,21} they should still remain available on prescription for people with psoriasis.

Active topical treatment

Active topical treatments should be applied daily during a flare until lesions flatten and can also be used less frequently on

two days a week to maintain remission alongside ongoing emollient application. Choice of topical treatment varies according to morphological variant and body site of psoriasis (see Table 2). Adherence can be improved through the use of once-daily treatments.²²

Topical corticosteroids

Topical corticosteroids (TCS) work through four main effects: anti-inflammatory (block inflammatory mediators), immunosuppressive (suppress T cell-mediated delayed hypersensitivity reactions), antiproliferative effects on epidermal cell turnover, and vasoconstriction. They are available in four potencies, from mild to very potent, and the application of intermittent short-term potent TCS is effective at gaining control in plaque psoriasis.²³ There are several potential adverse effects with long-term TCS use, including skin atrophy/striae, precipitation of unstable psoriasis (erythroderma or generalised pustular forms), tachyphylaxis (decreasing response to the drug) and systemic side-effects. Systematic review evidence of TCS safety in psoriasis is reassuring for short-term use.²⁴

Choice of potency and formulation of TCS (including lotions, gels, mousses, creams and ointments) will depend on the site, severity and patient preference. Compound preparations of TCS and vitamin D or salicylic acid are available, and in psoriasis potent TCS are most effective when used as a compound preparation with vitamin D.²³ Potent TCS should not be prescribed for use on the face, flexures or genitalia where the skin is thin. A thin layer of TCS should be applied once daily, and the finger-tip unit (FTU) should be explained to patients to help them measure how much TCS to apply: one FTU is the amount of TCS that is expelled from the tube onto the tip of the index finger to the first crease of the finger, which will be sufficient to cover an area of skin twice that of the flat of the hand with the fingers together.

Therapy should be continued until the skin feels smooth or stabilised, and then weaned down and stopped, or used less frequently (or consider changing to steroid-sparing treatments). Treated skin will often show post-inflammatory hyperpigmentation, and patients should be made aware of this and advised that these pigmentation changes will fade slowly and do not require ongoing treatment with TCS. Eight weeks is the maximum duration of continuous potent TCS use at any one site.¹¹

Vitamin D preparations

There are three topical vitamin D preparations for psoriasis available in the UK: a naturally occurring active metabolite of vitamin D, calcitriol (Silkis); and two synthetic vitamin D analogues, calcipotriol (Dovonex) and tacalcitol (Curatoderm). They exert potent effects on cellular proliferation and differentiation alongside immunomodulatory effects. They are available as ointments, gels, liquids, and foams. They are more effective than coal tar²³ and are recommended for long-term treatment of plaque psoriasis.

They can potentially induce hypercalcaemia, hypercalciuria and parathyroid hormone suppression and should not be used in patients with calcium metabolism disorders or in those with severe liver or kidney disease.²⁵ Caution is also needed in preg-

nancy and breastfeeding, and in people taking medications known to increase serum calcium, such as thiazide diuretics, or known to be affected by changing calcium levels, eg digoxin. Due to the risk of hypercalcaemia, the maximum recommended weekly amount of product for calcipotriol is 100g, calcitriol 210g and tacalcitol 70g.²⁵

Local skin irritation can occur, although calcitriol and tacalcitol are less irritant and may be better tolerated, particularly when used in the flexures or sensitive sites.²⁶ Advice is to apply once to twice daily, and the risk of flammability of the ointment and foam should be explained. Use of a combination product calcipotriol/betamethasone (Dovobet, Enstilar) applied once daily is clinically more effective at gaining faster improvement in plaque psoriasis, and primary care treatment pathways advocate this approach as being more patient-centred and to promote adherence.²⁷

Coal tar

Coal tar is the oldest known treatment for psoriasis. It reduces epidermal hyperproliferation and has anti-inflammatory effects.²⁸ There are many tar products available within the UK, including preparations combined with other active topical treatments such as salicylic acid, in multiple formulations such as ointments, shampoos and lotions. Many are available to buy over the counter without a prescription. They are less effective than vitamin D preparations for plaque psoriasis,²³ but should be considered when patients are unable to tolerate vitamin D preparations or when there are widespread thin plaques or if certain sites including the scalp are affected.

Patient preference is important as tar products can be messy and smelly, particularly the older unbranded products, which contain crude coal tar. They can also cause photosensitivity, skin irritation, folliculitis and staining of the skin. They should not be applied to broken or infected skin, to genitals, in the first trimester of pregnancy or in patients with pustular psoriasis.²⁹ It is advised that products such as 5% coal tar (Exorex lotion) should be applied once or twice daily to all affected areas (avoiding flexures), whereas scalp preparations should be less frequently applied.

Salicylic acid

Salicylic acid is a topical keratolytic agent and is often combined with other active topical therapies including TCS, coal tar and dithranol to increase their absorption and penetration to the psoriatic plaques. Commonly available products include: combination ointments, eg Sebco scalp ointment (coal tar 12%, salicylic acid 2%, Sulphur 4%, coconut oil); shampoos, eg Capasal shampoo (coal tar 1%, coconut oil 1%, salicylic acid 0.5%); and Diprosalic ointment/scalp application (betamethasone 0.05%, salicylic acid 3%/2%).

They are indicated to remove scale from hyperkeratotic plaques, including in the scalp. They should not be used in patients with known aspirin allergy and should not be applied to more than 20% of skin surface area due to the risk of salicylate toxicity, symptoms of which may include headache, tinnitus, nausea and vomiting.³⁰ Skin irritation may occur when applied


Morphological variant	Active treatment	Main advantages	Main disadvantages
<p>Chronic plaque affecting trunk and limbs</p> 	<ul style="list-style-type: none"> • Calcipotriol/betamethasone combination product (Dovobet/Enstilar) first-line once daily until lesions flattened; ongoing treatment during remission with calcipotriol (Dovonex) daily, or less frequent, eg twice weekly, calcipotriol/betamethasone combination product (Dovobet/Enstilar) • In hyperkeratotic plaques, consider emollient under occlusion with clingfilm or salicylic acid to descale first • If widespread thin plaques or response to calcipotriol/betamethasone combination suboptimal, consider coal tar product (eg Exorex lotion) 	<ul style="list-style-type: none"> • Effective at gaining faster control • Patient-centred • Well tolerated 	<ul style="list-style-type: none"> • May cause irritation in skin flexures • Do not exceed weekly amount
<p>Scalp psoriasis</p> 	<ul style="list-style-type: none"> • Descale thickened plaques overnight with oil preparations (eg coconut oil) or salicylic acid (eg Sebco) massaged into scalp; wash out with coal tar shampoo; continue until scale thinner • Apply either short-term intermittent potent topical steroids or calcipotriol/betamethasone combination product (Dovobet/Enstilar) to scalp overnight to treat ongoing inflammation • Ongoing maintenance with once or twice weekly tar-based shampoo and once or twice weekly potent topical steroids +/- salicylic acid preparations 	<ul style="list-style-type: none"> • Reduces scaling to allow other treatments to penetrate 	<ul style="list-style-type: none"> • Messy treatments • Can be irritative to non-affected skin
<p>Flexures and genitalia*</p> 	<ul style="list-style-type: none"> • Short-term moderate-potency topical steroid or combined antifungal/topical steroid (eg Eumovate, Daktacort, Trimovate), applied once daily • Once skin controlled, maintain control through application of topical steroid twice a week • Vitamin D preparations calcitriol (Silkis) and tacalcitol (Curatoderm) can be applied at opposite end of the day to topical steroid and used daily while applying topical steroid twice a week as maintenance therapy • Alternatively, calcineurin inhibitors may be used but this use is off-license in psoriasis and should not be applied in uncircumcised males 	<ul style="list-style-type: none"> • Topical steroids easy to use, effective and no skin irritation • Where co-existent yeast infection suspected, use of combined antifungal/topical steroid recommended • Use of vitamin D preparations reduces risk of skin atrophy/tachyphylaxis from topical steroid overuse 	<ul style="list-style-type: none"> • The skin is thin in the genitalia and therefore care should be taken to avoid overuse of topical steroids, which may cause skin atrophy and tachyphylaxis • Local skin irritation can occur with vitamin D preparations, although this is less so with calcitriol and tacalcitol than calcipotriol

Table 2. Active topical treatments for differing variants and body site of psoriasis. Adapted from Primary Care Dermatology Society Psoriasis Primary Care Treatment Pathway²⁷

Morphological variant	Active treatment	Main advantages	Main disadvantages
<p>Face</p> 	<ul style="list-style-type: none"> • Moderate-potency steroid ointment once daily short-term (1 week) • Combined antifungal/topical steroid (eg Daktacort) twice daily in more seborrhoeic types of psoriasis • Calcitriol (Silkis) applied twice a week and built up gradually • Calcineurin inhibitors once or twice a day (off-license use) 	<ul style="list-style-type: none"> • Topical steroids easy to use, effective and no skin irritation • Calcineurin inhibitors have no skin atrophy risk 	<ul style="list-style-type: none"> • Calcitriol (Silkis) can cause skin irritation, which can be improved by starting with lower frequency of use and building up • Calcineurin inhibitors can cause burning or tingling sensation, which usually settles with time
<p>Guttate psoriasis*</p> 	<ul style="list-style-type: none"> • Coal tar lotion (eg Exorex lotion) twice daily • Vitamin D preparation calcipotriol/betamethasone combination product (eg Dovobet or Enstilar foam) once daily to visible or symptomatic areas (not to be used on the face) • Refer early for narrow-band UVB phototherapy, which is effective treatment for widespread or unresponsive cases 	<ul style="list-style-type: none"> • Coal tar is safe to use if large areas affected and can be applied to non-affected as well as affected skin areas • Effective at gaining faster control, patient-centred, well tolerated 	<ul style="list-style-type: none"> • Smelly, may stain skin and clothing • Can be irritant and should not be applied to genitals • As large areas often affected with large number of lesions, application of vitamin D preparation, which are best applied to individual lesions, may be very time consuming for patients
<p>Palmoplantar pustular*</p> 	<ul style="list-style-type: none"> • Very potent topical steroid (eg Dermovate ointment) under occlusion with polythene (eg clingfilm) at night • Early referral for phototherapy or systemic therapy • More common in smokers; strongly advise re: smoking cessation 		<ul style="list-style-type: none"> • Effective treatment can be difficult • Messy ointments may be unacceptable to patient
<p>Hyperkeratotic palmoplantar*</p> 	<ul style="list-style-type: none"> • Use salicylic acid preparations (eg Diprosalic) to descale once daily • Apply under occlusion, for example cotton gloves for hands and polythene (eg clingfilm) for feet 	<ul style="list-style-type: none"> • Application of topical treatments under occlusion increases their potency and effectiveness 	<ul style="list-style-type: none"> • Messy ointments may be unacceptable to patient • Diagnostic uncertainty common; refer early when failing to respond to treatment for further investigation including patch testing and for systemic therapy

*Images used with permission from the Primary Care Dermatology Society

Table 2. Active topical treatments for differing variants and body site of psoriasis. Adapted from Primary Care Dermatology Society Psoriasis Primary Care Treatment Pathway²⁷ (cont.)

to non-hyperkeratotic skin. Application is usually once daily until the thick adherent scale is softened and thinner.

Calcineurin inhibitors

Calcineurin inhibitors are a class of topical immunomodulators, which reduce inflammation by suppressing T cell responses. There are two preparations, tacrolimus ointment (Protopic, available in two strengths, 0.1% and 0.03%) and pimecrolimus 1% cream (Elidel). Although less effective than TCS, they have lower local risks (steroid-induced skin atrophy),³¹ and can be used in flexural or facial psoriasis when moderately potent TCS have been ineffective or poorly tolerated (unlicensed indication).^{12,32} They are applied in a thin layer to affected areas twice daily for up to four weeks, reducing the frequency of application with response.

While the *BNF* recommends they are initiated under specialist supervision,³² most secondary care dermatologists support their use in primary care. Patients must be advised that with initial use they may experience a burning or tingling sensation, which usually settles over the first week of treatment and can be minimised by application at night and storing the product in a cool place. They must not be applied during episodes of skin infection. Sun protection advice should be given due to their photosensitivity effect. Other potential side-effects include local skin erythema, folliculitis, skin infections (eg herpes simplex), acne, increased sensitivity to hot and cold temperature, alcohol intolerance and, rarely, lymphadenopathy.

Tazarotene and dithranol

Tazarotene and dithranol have been shown to be effective in chronic plaque psoriasis treatment but are not as effective as TCS or vitamin D preparations,²³ and their use may be limited by patient acceptability and side-effects.

Tazarotene (Zorac) is a topical retinoid, available as either a 0.05% or 0.1% gel, which is applied once daily for up to 12 weeks. It modulates the abnormal keratinocyte differentiation and proliferation as well as inflammation in psoriasis. In common with other retinoids, there is a risk of teratogenicity, it can cause photosensitivity, and its use is limited by local skin irritant effects, which are common and may be reduced through application of a TCS at the other end of the day.

Dithranol (Dithrocream) reduces keratinocyte proliferation,

restores cell differentiation and prevents T cell activation. It is effective on thick large plaques and provides longer term remission compared with topical corticosteroids, but is severely irritant to normal surrounding skin, and stains both skin and clothing in the short term.³³ It should not be applied in acute pustular psoriasis, or to facial or sensitive skin areas. When used in the community, it is recommended that dithranol is started at a low concentration and applied once daily as 'short-contact therapy', being left on the skin for around an hour and then washed off.³³ The dithranol concentration is slowly increased over a few weeks depending on thickness of the plaques and patient tolerance to adverse effects.

Lifestyle advice, education and psychological support

While the evidence is limited on the effects of lifestyle changes in psoriasis, a recent systematic review showed that weight loss and exercise in obese patients reduced the severity of psoriasis and improved quality of life.³⁴ Advice on exercise and diet, smoking cessation and alcohol intake should be provided to all patients. Acknowledging and supporting patients with psychological co-morbidities is important in psoriasis management, and evidence suggests the use of cognitive behavioural therapy, mindfulness and motivational interviewing are effective adjuncts.³⁵

Applying topical treatments long-term is challenging for patients, and shared decision making for treatment choices is uncommon in psoriasis.³⁶ Evidence suggests many patients with psoriasis have unmet needs with respect to their knowledge and understanding of treatments, and desire shared management with their healthcare professionals.^{37,38} Addressing patients' concerns and preferences over treatments may improve acceptability and adherence, alongside education on how and when to apply topical treatments. Provision of high-quality supportive information to improve awareness and confidence in self-management is recommended in guidelines,^{11,12} and there are many reliable resources of support and information (see below).

Review and referral

It is recommended that patients are reviewed four to six weeks after commencing an active topical treatment to check

response and adherence.^{11,12} If there is a poor response to initial treatment, patients should be asked about possible adherence issues, including acceptability, tolerance and ease of use of topical treatments. Oral corticosteroids, eg prednisolone, should not be prescribed for patients with psoriasis due to the risk of precipitating rare severe generalised pustular or erythrodermic psoriasis.

Referral to secondary care dermatology for second-line treatments should be considered immediately in patients with erythroderma (>90% skin covered), generalised pustular psoriasis, and when psoriasis is worsening in a systemically unwell patient. Routine or urgent referral should be considered when there is:¹¹

- Diagnostic uncertainty
- Severe or extensive psoriasis (>10% body surface area affected)
- Poor response to topical treatments after two to three months' use or if treatments are poorly tolerated
- Significant psychosocial impact.

Patients with suspected psoriatic arthritis should be referred urgently to a rheumatologist.

Guidelines also suggest that patients with psoriasis should have an annual review with their GP which should include:^{11,12}

- Disease severity assessment, alongside discussion around topical treatments to assess for adverse effects (eg skin atrophy) and treatment acceptability
- Screening for depression and social impact
- Assessment of cardiovascular risk every five years in adults
- Screening and assessment of joint symptoms.

Conclusion

Psoriasis is a common long-term inflammatory skin condition, which when mild or moderate in severity can be managed effectively with appropriate topical treatments. Choice of which treatment to initiate should be tailored to body site, severity, morphological variant and patient preference. Improved understanding and holistic assessment of associated co-morbidities is needed, alongside lifestyle advice and supportive information. Follow-up is required in all patients initiated with new treatments, and an annual review in primary care is recommended.

Sources of support and information

The Psoriasis Association: <https://www.psoriasis-association.org.uk/>
Psoriasis and Psoriatic Arthritis Alliance (PAPAA): <https://www.papaa.org/>

British Association of Dermatologists patient information leaflet on psoriasis: <https://www.skinhealthinfo.org.uk/condition/psoriasis/> and topical treatments in psoriasis: <https://www.skinhealthinfo.org.uk/condition/topical-treatments-for-psoriasis/>

Healthtalk videos on personal experience of living with and managing psoriasis: <http://www.healthtalk.org/young-peoples-experiences/psoriasis/topics>

Talkhealth Online support programme for psoriasis: <https://www.talkhealthpartnership.com/psoriasis.php>

British Association of Dermatologists video guides on how to use emollients, how to use TCS, and treating scalp psoriasis: <https://www.skinhealthinfo.org.uk/support-resources/video-guides/>

Primary Care Dermatology Society website for diagnostic and management guidance: <http://www.pcids.org.uk/clinical-guidance/psoriasis-an-overview-including-a-primary-care-treatment-pathway-for-psoriasis>: http://www.pcids.org.uk/ee/images/uploads/general/Psoriasis_Treatment_2019-web.pdf

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Acknowledgement

We thank the Primary Care Dermatology Society for permission to use their images within this article. The Primary Care Dermatology Society maintain copyright for all images used within the tables.

Declaration of interests

None to declare.

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