PHARMACY MAGAZINE CPD MODULE
REFLECT
PLAN
ACT
EVALUATE

module 236

www.pharmacymagazine.co.uk

Welcome to the two hundred and thirty sixth module in the *Pharmacy Magazine* Continuing Professional Development Programme, which reviews the treatment of psoriasis.

Journal-based educational programmes are an important means of keeping up to date with clinical and professional developments. Completion of this module in the magazine or online will contribute to the nine pieces of CPD that must be recorded a year.

Before reading this module, test your existing understanding of the subject by completing the pre-test at **www.pharmacymagazine.co.uk**. Then, after studying the module in the magazine or online, work through the learning scenarios and post-test on the website. Record your learning using your personal *Pharmacy Magazine* online log or complete the form on pviii.

The RPS Faculty and advancing your professional development

Pharmacy Magazine's CPD programme can form part of your professional development, providing you with essential knowledge and skills. It can also be considered alongside other activities for inclusion in your RPS Faculty portfolio.

The RPS Faculty is a professional recognition programme for all pharmacists in all sectors at all stages of their career and involves assessment of a practice-based portfolio that recognises their professional development.

This allows you to demonstrate to others your level of attainment and stage of advanced practice. It also helps you to identify what you need to know at different stages of your career. Start your Faculty journey by accessing the portfolio and tools at **www.rpharms.com/Faculty**.

forthismodule

GOAL

To provide an update of current thinking on the treatment of psoriasis.

training excellence NPA National Pharmacy Association Quality Seal 2015 in association with CIG

OBJECTIVES:

After studying this module you should be able to:

- Describe the clinical features and the treatments available for mild, moderate and severe psoriasis
- Explain how MURs can be used to improve the effectiveness of prescribed treatments for psoriasis.

First in professional development pharmacy magazine

the continuing professional development programme

CPD

Working in association with ROYAL PHARMACEUTICAL SOCIETY FACULTY

This module is suitable for use by community pharmacists as part of their continuing professional development. After reading this module in the magazine or online, complete the scenarios and post-test at **www.pharmacymagazine.co.uk** and include in your personal learning log. CPD is one aspect of professional development and can be considered alongside other activities for inclusion in your **RPS Faculty portfolio.**

The treatment of psoriasis

Contributing author: Dr Christine Clark, PhD, MSc, BSc, FRPharmS, specialist clinical pharmacy writer

Introduction

Psoriasis is an inflammatory skin disease that is currently incurable but is amenable to treatment. It is estimated to affect 1.3-2.2 per cent of the population in the UK. The condition can occur at any age and, although the majority of cases occur before the age of 35 years, it is uncommon in children.

A proportion of patients also have an associated joint disease (psoriatic arthritis), while those with severe disease may be at increased risk of CVD, lymphoma and non-melanoma skin cancer.

The cause of psoriasis is not known but inheritance appears to play a part in some individuals. Approximately one-third of patients have a family history and a number of genetic markers have been identified.

Psoriasis normally follows a relapsing and remitting course. Although people with psoriasis are rarely completely clear of diseased skin, there can be long periods when the disease is confined to a small patch on the leg or elbow. They are also likely to experience phases of active disease (flare-ups or exacerbations) when the disease appears to break out and inflamed (red, thickened, scaling) plaques can appear anywhere on the skin.

Psoriasis has a profound impact on the functional, psychological and social dimensions of life and this has important implications for effective management. The significant reduction in quality of life and psychosocial disability suffered by people with psoriasis underlines the need for prompt, effective treatment and long-term disease control.

Clinical features

Plaque psoriasis is the commonest clinical form of the condition, accounting for about 90 per cent of patients with the disease. It is also known as psoriasis vulgaris or chronic (stable) plaque psoriasis, and is characterised by well-defined, thickened, red plaques covered with silvery scales that are readily shed. (A plaque is a raised patch on the skin more than 2cm across.) On black skin the plaques appear dark red and the scale appears greyish. If the scales are scratched or removed, characteristic pinpoint bleeding (Auspitz's sign) is seen.

Psoriasis plaques can occur almost anywhere on the body but the most commonly affected areas are the scalp, the extensor surfaces of the limbs (typically shins and elbows) and the lower back. The plaques tend to be more or less symmetrical and they can crack and bleed. A significant proportion of patients find their psoriasis lesions itchy.

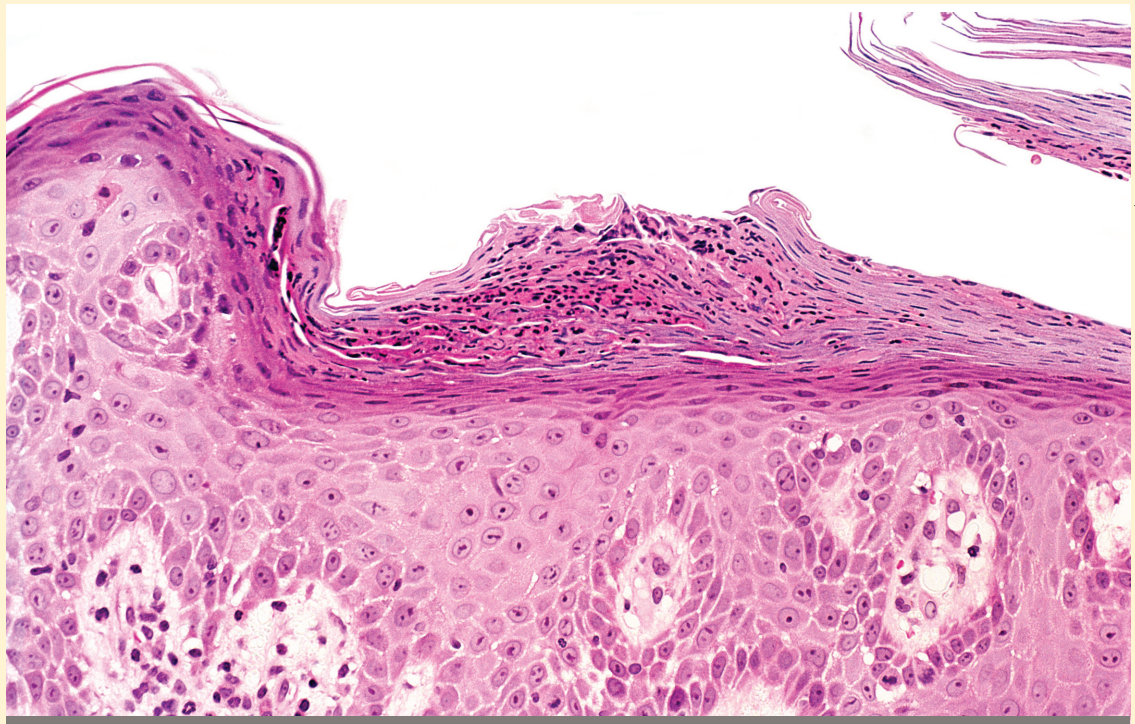
The extent of the disease is variable, ranging from a few plaques to more generalised disease covering large areas of skin. Flexural psoriasis, scalp psoriasis and seborrhoeic psoriasis (sebo-psoriasis) are all types of plaque psoriasis.

Flexural psoriasis

Flexural psoriasis (also known as inverse or intertriginous psoriasis) refers to plaque psoriasis affecting areas in the axillae groin, genital and natal cleft (between the buttocks) sites and under the breasts. Lesions are typically red, shiny and less scaly. They can also feel sore and be vulnerable to fungal infections.

Reflection exercise 1

Many patients with psoriasis have had treatment over a period of many years and tried a wide variety of therapies. Consider conducting MURs with two such patients to get an insight into their experiences of treatment.



BIOPHOTO ASSOCIATES/SCIENCE PHOTO LIBRARY

Light micrograph of a section through skin affected by psoriasis

Scalp psoriasis

Scalp psoriasis can vary from light scaling to grossly thickened scales stuck to the hair shafts. About 80 per cent of psoriasis patients will have some degree of scalp involvement. Profuse shedding of skin scales from the scalp can be a serious problem for some patients.

Seborrhoeic psoriasis

Seborrhoeic psoriasis is localised on seborrhoeic areas of the face, scalp and trunk. Some experts believe that infection with Malassezia yeasts (the 'dandruff organism') plays a role.

Other types of psoriasis are listed in Table 1.

Pathophysiology

The major biological abnormalities in psoriasis are as follows:

- Hyperproliferation of the epidermis. This leads to thickening of the epidermis and scaling. Affected skin can be up to 16 times thicker than normal skin. The hyperproliferation is the result of larger than usual numbers of cells entering the growth phase, rather than acceleration of growth (i.e. more cells growing rather than cells growing faster)
- Abnormal differentiation (maturation) of keratinocytes. When the skin in psoriatic plaques is examined microscopically, the granular layer is missing, the stratum corneum is thickened and many of the cells in the stratum corneum still contain nuclei (normally lost by the time cells reach this layer)
- Infiltration of the dermis and epidermis with activated T-lymphocytes and neutrophils
- Stimulation of the cutaneous vasculature, leading to new blood vessel formation in the psoriatic plaques.

Cell-mediated immune mechanisms appear to drive these processes. In essence, activated T-cells release inflammatory cytokines that induce keratinocytes to release a number of compounds including vascular endothelial growth factor (VEGF) and additional cytokines. A complex cascade of molecular events eventually results in keratinocyte proliferation, angiogenesis and neutrophil infiltration.

The fine detail of these processes is not yet fully understood but a growing understanding of this area has led to studies of a large number of

biological agents, including the tumour necrosis factor (TNF) antagonists adalimumab, etanercept and infliximab, and the monoclonal antibody ustekinumab, that targets interleukin-12 (IL-12) and IL-23.

Nails and joints

The fingernails and toenails are affected in about half of patients. Nails show small pits (similar to those on a thimble), onycholysis (partial separation of the nail from the nail bed) and 'oil spots' or 'salmon patches' (characteristic discolouration due to areas of psoriasis under the nail). Some or all of the nails can be affected.

Psoriatic arthritis

The proportion of psoriatic patients developing psoriatic arthritis (PsA) ranges from 6 to 42 per cent, according to different studies. Patients with PsA suffer from decreased quality of life, pain and functional impairment, and increased mortality compared to the general population. Early diagnosis of PsA has become a key concern, as early treatment with biologics could prevent irreversible joint damage and deformities.

Co-morbidities

In recent years it has become apparent that psoriasis is associated with several physical and psychological co-morbidities in addition to psoriatic arthritis. It is not known whether psoriasis precedes the co-morbidities or *vice versa*. The most frequently observed co-morbidities are dyslipidemias, obesity, diabetes, and cardiovascular diseases (e.g. myocardial infarction, hypertension).

Psoriasis can have a negative impact on quality of life with patients reporting feelings of low self-esteem, depression, social isolation and stigmatisation. The relapsing and remitting pattern of the disease imposes a significant burden and means that many patients with psoriasis live with a constant fear that the disease will flare up.

Visible lesions (for example, on the hands and scalp) have a greater psychosocial impact than lesions that can be more easily covered up. The social and occupational impact of psoriasis should not be underestimated. Patients with psoriasis often report difficulties in sexual relationships because of the disease and limits to career options because of their appearance or perceived problems. Psoriasis can be at least as, if not more, damaging to quality of life as cancer, arthritis, hypertension, heart disease, diabetes or depression.

Table 1: Types of psoriasis

Name	Clinical appearance	Commentary
Chronic plaque psoriasis (CPP)	Well-defined, thickened, red plaques covered with silvery scale	Accounts for 90 per cent of psoriasis. Commonly affects extensor aspects of limbs, but can also affect flexures and scalp
Guttate psoriasis	Widespread small (<1cm), scaly lesions (as if spattered from a brush)	Acute form of psoriasis that usually affects children and young adults. Commonly follows a streptococcal throat infection. In most patients guttate psoriasis clears within eight weeks with topical therapy
Pustular psoriasis	Localised pustular psoriasis is a condition characterised by yellow/brown coloured sterile pustules on the palms of the hands or soles of the feet. Generalised pustular psoriasis is a rare form of the disease in which sheets of sterile pustules develop on already inflamed skin	The onset of generalised pustular psoriasis is often acute and the patient is seriously ill with fever and malaise. Hospital admission is required
Erythrodermic psoriasis	A rare condition in which the skin becomes reddened and inflamed all over the body. There is usually scaling	Develops in patients who already have a history of CPP. The skin feels hot but the patient complains of shivering and malaise. Erythrodermic psoriasis can be precipitated by the withdrawal of systemic or potent topical steroids

Diagnosis and identification of precipitating factors

The diagnosis of psoriasis is based on patient history and a physical examination.

Although the exact mechanisms are not understood, a number of precipitating factors have been identified that can trigger episodes of psoriasis in susceptible individuals. These include:

- Trauma: psoriasis can appear at sites of injury such as scratches or surgical wounds or even tattoos (the 'Koebner phenomenon')
- Infection: guttate psoriasis is often triggered by pharyngitis caused by beta-haemolytic streptococci
- Hormonal events
- Sunlight: usually improves psoriasis but 10 per cent of cases worsen on exposure to sunlight
- Drugs: beta-blockers, antimalarial agents and lithium can worsen or precipitate psoriasis
- Alcohol
- Cigarette smoking
- Psychological stress: profound psychological stress can trigger psoriasis (e.g. bereavement or divorce).

Monitoring and assessment

It is important to have a reliable way of assessing psoriasis so that the effects of treatment can be measured.

NICE guidelines recommend that routine assessment should cover:

- Disease severity
- The impact of disease on physical, psychological and social wellbeing
- Whether it is psoriatic arthritis
- The presence of co-morbidities.

The assessment of disease severity should include:

- The Physician's Global Assessment (classified as clear, nearly clear, mild, moderate, severe or very severe)
- The Patient's Global Assessment (classified as clear, nearly clear, mild, moderate, severe or very severe)
- An estimate of the percentage of body surface area affected

You can complete this module online at **pharmacymagazine.co.uk** and record your learning outcomes and the impact on your practice in your **personal learning log**

- Any involvement of nails, high-impact and difficult-to-treat sites (e.g. the face, scalp, palms, soles, flexures and genitals).

The Psoriasis Area and Severity Index (PASI) is commonly used in clinical studies. To calculate the PASI score, the clinician estimates the percentage of skin area affected and the severity (redness, thickening and scaliness) of disease for each of four body areas and enters these values into the PASI formula. The PASI scale goes from zero to 72. In practice, a score of 10 or more is interpreted as moderate to severe psoriasis.

The Dermatology Life Quality Index (DLQI) is a validated quality of life measure for people with skin diseases that is incorporated into NICE Technology Appraisals for the use of biologics in psoriasis. It is based on 10 questions that explore aspects of the disease that are important to patients, such as discomfort caused by the disease and whether the disease has interfered with work or study. It takes about two minutes to complete and gives a score between 0 and 30. A score above 10 is interpreted as having a large impact on quality of life.

Treatment

Most patients with chronic plaque psoriasis have mild disease that can be managed in a primary care setting using topical treatments – the first-line treatment option.

Second-line treatment (phototherapy or photochemotherapy [PUVA]) or third-line treatment with systemic drug formulations is usually reserved for patients with moderate or severe disease but can be used together with topical therapy if the disease is extensive (affecting more than 10 per cent of the body surface area) or if there is nail disease (for which topical therapy is ineffective).

NICE Clinical Guideline 153 reviewed the published evidence and set out evidence-based recommendations for treatment.

Topical treatments

Topical treatments include emollients, topical corticosteroids, vitamin D analogues, coal tar and dithranol. Patients usually need different products for three areas of the body:

- Trunk and limbs
- Face and flexures (where the skin is thinner)
- Scalp.

Table 2: Sequence of topical treatments for psoriasis of the trunk and limbs

1	A potent corticosteroid applied once daily plus vitamin D (or analogue) applied once daily. Apply separately, one in the morning and the other in the evening, for between 4-8 weeks
2	Vitamin D (or analogue) alone applied twice daily for 8-12 weeks
3	Either: · A potent corticosteroid applied twice daily for up to 4 weeks or · A coal tar preparation applied once or twice daily
4	If a twice-daily potent corticosteroid or coal tar preparation cannot be used or a once-daily preparation would improve adherence in adults, offer a combined product containing calcipotriol monohydrate and betamethasone dipropionate applied once daily for up to 4 weeks
5	Offer treatment with **very potent corticosteroids** in adults with trunk or limb psoriasis only: · In specialist settings under careful supervision · When other topical treatment strategies have failed · For a maximum period of 4 weeks
6	Consider **short-contact dithranol** for treatment-resistant psoriasis of the trunk or limbs and either: · Give educational support for self-use or · Ensure treatment is given in a specialist setting

For **children and young people** with trunk or limb psoriasis consider either:
· Calcipotriol applied once daily (only for those over 6 years of age)
or
· A potent corticosteroid applied once daily (only for those over 1 year of age).

Adapted from NICE CG153

NICE recommends that treatments be tried in a logical sequence until satisfactory products or regimens are found (see Tables 2, 3 and 4).

Should there be an unsatisfactory response at any stage, it is important to check whether there have been difficulties with application, cosmetic acceptability or tolerability before changing to a different treatment. If problems have prevented effective use of a treatment, it may be possible to offer an alternative formulation.

Patients with psoriasis should be offered a supply of their topical treatment to keep at home for the self-management of their condition.

Emollients

All patients with psoriasis should be encouraged to use an emollient regularly. Emollients restore pliability to the skin and reduce the shedding of skin scales, which patients find embarrassing. They can also reduce pruritus and help prevent painful cracking and bleeding.

Patients should be encouraged to experiment with emollients until they find products that suit them, bearing in mind that different products may be needed for different areas of skin.

Reflection exercise 2

Potent topical corticosteroids are now recommended as first-line treatment for psoriasis affecting the trunk/limbs and scalp. Consider how you would explain the risks of continual use of such products to ensure effective use without fuelling 'steroid phobia'.

Emollients that contain humectants (e.g. urea or glycerin) are generally more effective moisturisers and have longer-lasting effects. Suitable products include Eucerin Dry Skin Intensive 10% Urea Treatment Cream, Hydromol Intensive and Neutrogena Dermatological. An emollient bath additive can also be used to counteract the drying affects of bathing.

Corticosteroids

Topical corticosteroids do not smell, stain or cause irritation and are often effective for bringing a flare-up under control. These advantages have to be balanced against the risks of local side-effects, such as skin atrophy, striae, telangiectasias, and the risk of rebound and worsening of psoriasis after discontinuation. Tachyphylaxis (the need for increasing amounts in order to achieve the same effect as treatment progresses) can also be a problem. If more than 10 per cent of the body surface area is treated with topical corticosteroids, there can be a risk of systemic side-effects.

In order to minimise the risk of these side-effects, the following points should be noted:

- There should be a four-week break between courses of treatment with potent or very potent corticosteroids. Vitamin D, vitamin D analogues or coal tar products may be used during this time to control the condition
- Potency and formulation of a topical corticosteroid should be matched to patient need
- Very potent corticosteroids should not be used continuously at any site for longer than four weeks
- Potent corticosteroids should not be used continuously at any site for longer than eight weeks
- Very potent corticosteroids should not be used in children and young people.

Vitamin D

Vitamin D and vitamin D analogues can clear psoriasis in six to eight weeks. The most effective way to use them is in combination with a topical potent corticosteroid (see Table 2).

Vitamin D (and analogues) inhibit proliferation and promote differentiation of keratinocytes. In this way they 'normalise' skin cell behaviour in psoriatic plaques. Vitamin D analogues have a weaker effect on calcium metabolism than vitamin D itself. Unlike older treatments, such as tar and dithranol, they neither smell nor stain, nor do they carry the risk of the skin atrophy seen with topical steroids. Skin irritation, resulting in transient increased redness, dryness and stinging or burning, can be a problem and, for this reason, calcipotriol should not be used on the face or flexures. Calcitriol is significantly less irritant and may be used on the face and sensitive flexural areas.

It is important to ensure that adequate quantities are used – 0.5g (a fingertip unit) of calcipotriol cream or ointment per 100cm^2 of skin (approximately the area of a medium-sized adult palm). It is worth emphasising that calcipotriol should be applied fairly thickly, in contrast to topical corticosteroids.

The maximum weekly doses of the vitamin D analogues are limited to calcipotriol 100g, calcitriol 210g and tacalcitol 70g to avoid the risk of hypercalcaemia.

Tar preparations

Coal tar has been used in the treatment of psoriasis for decades. Its mode of action is not fully understood and the active component (among the thousands in crude coal tar) is unknown.

Coal tar is believed to be keratolytic, with some anti-inflammatory and antiproliferative effects. In addition to proprietary preparations, crude coal tar, 1-5 per cent in white or yellow soft paraffin or emulsifying ointment, has been used to treat psoriasis. It stains clothing and smells unpleasant to many people. In addition, it is less effective than vitamin D derivatives. It has been combined with UVB phototherapy (as in the Goeckerman regimen).

Crude coal tar contains a number of carcinogens and percutaneous absorption of mutagens is known to occur. Nevertheless, there is no epidemiological evidence that topical coal tar treatment increases the risk of cutaneous or internal cancer. Coal tar is present in a number of OTC products.

Dithranol

Dithranol (anthralin) has been used for the treatment of psoriasis for many years. It is a yellow powder that is profoundly irritant to normal skin, causing inflammation and severe blistering. It causes a purple-brown residual (temporary) staining of skin and also stains clothing and bathroom fittings permanently.

Dithranol was traditionally incorporated into Lassar's paste (zinc and salicylic acid paste BP) so that it could be applied to the psoriasis plaques and kept away from uninvolved skin. This is made in concentrations from 0.1 per cent up to 2 per cent and the concentration used is gradually increased according to the patient's response. It is believed to exert a direct anti-proliferative effect on epidermal keratinocytes.

Dithranol has been used in two main ways. Traditional, in-patient treatment involves application by a nurse. After 12-24 hours the paste is removed and the patient has a tar bath and ultraviolet B irradiation (Ingram regimen).

In recent years short-contact dithranol treatment (SCDT) has been used. This involves application of dithranol in concentrations of up to 8 per cent for between 15 and 30 minutes, with or without UVB irradiation. For some patients, SCDT is suitable for home use. A response can be expected within 20 days. Great care must be taken to avoid contact with normal skin and facial skin. Dithranol treatment is impractical if there are multiple small plaques and it is not suitable for the treatment of flexural psoriasis because of its irritant nature.

"Incurable but amenable to treatment..."

Treatments for scalp psoriasis

Scalp psoriasis often extends just beyond the scalp margin, leaving an inflamed, scaly border extending about one centimetre from the hairline. On the scalp, thickened, scaly patches are separated by areas of normal skin. The scalp can be itchy and feel tight or sore.

Just as psoriasis on other areas of the body varies in severity between individuals, so does the extent to which it affects the scalp. Some people appear to have a bad attack of dandruff, shedding large numbers of silvery-white skin flakes, but others can have a thick, unsightly layer of scale.

Psoriasis does not normally affect hair growth although some patients with scalp psoriasis experience temporary thinning of the hair, which usually corrects itself once the disease is controlled.

Treatments for scalp psoriasis include:

- Products to soften and loosen the scale
- Products to treat the inflammatory lesions
- Shampoos.

Regular use of a tar-containing shampoo may be sufficient to control mild scalp psoriasis. The treatment of severe scalp psoriasis is likely

Table 3: Sequence of topical treatments for the face, flexures and genitals

1	Offer a short-term mild or moderate potency corticosteroid applied once or twice daily (for a maximum of 2 weeks)
2	If the response to short-term moderate potency corticosteroids is unsatisfactory, or they require continuous treatment to maintain control and there is serious risk of local corticosteroid-induced side-effects, offer a calcineurin inhibitor applied twice daily for up to 4 weeks * Calcineurin inhibitors should be initiated by healthcare professionals with expertise in treating psoriasis

Adapted from NICE CG153

Reflection exercise 3

The management of scalp psoriasis can be particularly challenging and is often a cause of great concern for patients. Hairdressers are familiar with the problem. Discuss with a hairdresser how they work with patients with psoriasis and the types of problems that they encounter.

to involve two stages (see Table 4). First, treatment is required to soften and remove the scale. This allows active treatments, used in the second stage, to have maximum potential benefit in controlling the disease process.

Scale can be softened using olive oil or compound coconut ointment. Products containing keratolytic agents, such as salicylic acid or sulphur, can help lift scales. Thorough but gentle application and sufficient contact time are essential for success. Olive oil can be massaged gently into the scalp and left for at least one hour to penetrate the dried scale.

Ointment should be applied quite thickly, parting the hair in several places so as to cover the whole scalp. Again, it should be left in place for at least an hour. Some specialists advise leaving these softening treatments on overnight. A plastic shower cap can be worn over the hair and pillows need to be protected with a towel.

Before shampooing the hair to wash out the oil or ointment, some of the loosened scales can be gently combed or picked out.

Most people find scalp treatment easier if someone else can help with the application and the combing-out processes. It is also helpful to work the shampoo into the hair near the scalp *before* adding water – to remove the oil more effectively. It may take some time to get the scalp and hair back into a satisfactory condition. The softening and shampooing process may need to be repeated daily for a few days.

The second step, active treatment with vitamin D derivatives or corticosteroid scalp applications, can then be performed. Again, careful, thorough application is needed, gently parting the hair and working across the whole scalp.

Perming, colouring and bleaching of the hair can all be done safely in people with psoriasis, subject to the usual precautions (e.g. testing for skin sensitivity beforehand).

However if there is active disease, it is better to wait until it has subsided because the chemicals can exacerbate a flare of psoriasis if the skin is cracked or damaged.

Ultra-violet light-based treatments (UVB and PUVA)

Both ultraviolet B (UVB) (290-320nm) and ultraviolet A (UVA) (320-400nm) are thought to modulate the expression of cellular adhesion molecules and induce T-cell apoptosis (programmed cell death), thereby interrupting the inflammatory processes of psoriasis.

Narrow band UVB (310-312nm) phototherapy is used for people with plaque or guttate pattern psoriasis that cannot be controlled with topical treatments alone. Treatment has to be given two or three times a week, the intensity adjusted for skin type to minimise the risk of burning.

PUVA (psoralen plus UVA) phototherapy involves the use of a topical or systemic psoralen sensitiser before the UVA treatment. It is used for plaque psoriasis and palmoplantar pustular psoriasis. The dose is adjusted for skin type but any treatment tans the skin and presents a dose-related increased risk of skin cancer (squamous cell carcinoma).

Systemic non-biological treatment

Systemic non-biological (immunomodulatory) agents are methotrexate, ciclosporin and acitretin. Each requires careful monitoring to minimise the risk of harmful side-effects. The criteria for appropriate prescribing and monitoring of these agents are set out in the NICE guideline. Methotrexate, dosed weekly, is the agent of first choice, followed by ciclosporin if methotrexate is ineffective or intolerable.

Apremilast (Otezla from Celgene) – the first of a new class of systemic non-biological drugs – was approved in Europe in January 2015. Apremilast is an oral, selective PDE4 inhibitor. As such it acts early in the inflammatory signaling cascade and inhibits numerous pro-inflammatory mediators including TNF-alpha, interleukins (IL) 6, 17 and 23, and interferon-gamma. The dose has to be titrated up over the first week to minimise the occurrence of GI side-effects.

Unlike the agents described above, apremilast does not require intensive monitoring for toxicity. A NICE Technology Appraisal of apremilast is expected in August 2015.

Systemic biological therapy

The biologics act by blocking components of the immune response that play a part in psoriasis. Adalimumab, etanercept and infliximab block tumour necrosis factor (TNF)-alpha; ustekinumab blocks the activation of T-cells by inhibiting the actions of interleukin-12 (IL-12) and IL-23; secukinumab selectively binds to and neutralises the pro-inflammatory cytokine interleukin-17A (IL-17A). IL-17A plays a key role in the pathogenesis of plaque psoriasis, upstream from TNF-alpha and IL-23.

The major advantage of biologics is that the treatment is given by injection and, in general, the side-effects appear to be less wide-ranging than with the conventional systemic agents.

The main disadvantages are that:

- Patients need to learn to self-inject, or be prepared to spend time in hospital at regular intervals for intravenous (IV) infusions

Table 4: Sequence of topical psoriasis treatments for the scalp

1	A potent corticosteroid applied once daily for up to 4 weeks
2	Consider: · A different formulation of the potent corticosteroid (e.g. a shampoo or mousse) and/or · Topical agents to remove adherent scale (e.g. agents containing salicylic acid, emollients and oils) before application of the potent corticosteroid for 4 weeks
3	Either: · A combined product containing calcipotriol monohydrate and betamethasone dipropionate applied once daily for up to 4 weeks or · Vitamin D (or analogue) applied once daily for up to 8 weeks (only in those who cannot use steroids and with mild to moderate scalp psoriasis)
4	Offer: · A very potent corticosteroid applied up to twice daily for 2 weeks for adults only or · Coal tar applied once or twice daily or · Referral to a specialist for additional support with topical applications and/or · Advice on other treatment options

Consider topical vitamin D or a vitamin D analogue alone for the treatment of scalp psoriasis only in people who:
· Are intolerant of or cannot use topical corticosteroids at this site
or
· Have mild to moderate scalp psoriasis.
Do not offer **coal tar-based shampoos** alone for the treatment of severe scalp psoriasis

Adapted from NICE CG153

Table 5: OTC products for psoriasis

Class of product	Products
Emollients containing coal tar	Psoriderm (P) (coal tar 6%) Carbo-Dome (GSL) (coal tar solution BP 10%) Exorex lotion (coal tar solution 5%)
Scalp ointments	Cocois Sebco (coal tar solution 12%, salicylic acid 2%, precipitated sulphur 4%, in a coconut oil emollient base)
Shampoos containing coal tar	Polytar Alphosyl Neutrogena T-Gel Therapeutic Shampoo
Bath additives containing coal tar	Polytar Psoriderm
Products containing salicylic acid	Capasal shampoo can be useful if there is heavy shedding of skin scales from the scalp

- The long-term effects of these agents are as yet unknown.

Guidance on the use of biologic agents is set out in NICE Technology Appraisals 103, 134, 146 and 180. A Final Appraisal Determination (FAD) recommendation for use of secukinumab on the NHS was released by NICE this month.

Scope for MURs

The NICE guideline also emphasises the importance of:

- Explaining how to use or apply treatments to improve adherence
- Monitoring the response to treatment.

Patients using topical treatments are likely to have four different products to apply and so there is plenty of scope for misunderstandings and forgotten information.

It is estimated that up to 40 per cent of patients with psoriasis are non-adherent to their treatment regimens – often because they experience problems in applying the treatment.

In the past many patients were dissatisfied with treatments for psoriasis and simply gave up on them or turned to untested alternatives.

An MUR offers the opportunity to:

- Check that products are being used correctly
- Assess the response
- Explain other treatment options if appropriate
- Signpost the patient appropriately. (Given the profound impact of uncontrolled disease, this can be a very useful thing to do.)

MUR checklist

A MUR for a patient receiving prescribed treatment for psoriasis should systematically check:

- Whether an emollient is used and, if so, how it is used and whether the response is satisfactory
- Which products are used for trunk and limbs, face flexure and genitals, and scalp
- For each area check how each product is used and whether the response is satisfactory
- Check that the patient knows when to start treatment (i.e. can recognise a flare-up) and when to discontinue or 'step down' treatment.

It is useful to:

- Ask the patient to make an overall assessment of his or her disease, rating it as clear, nearly clear, mild, moderate, severe or very severe
- Ask about any involvement of nails, high-impact and difficult-to-treat sites (e.g. the face, scalp, palms, soles, flexures and genitals).

It is important to discuss with patients:

- The importance of continuing treatment until a satisfactory outcome is achieved (e.g. clear or nearly clear) or up to the recommended maximum treatment period for corticosteroids
- That relapse occurs in most people after treatment is stopped
- That after the initial treatment period topical treatments can be used again when needed to maintain satisfactory disease control
- The importance of a four-week break between courses of potent/very potent corticosteroids.

It can be helpful to draw a personalised body diagram to show which products go where.

It is also worth emphasising that psoriasis is not infectious and cannot be spread to new areas of skin through the application of topical treatments.

Responding to OTC requests

The OTC products that can be helpful to patients with psoriasis are limited to emollients and products containing either coal tar or salicyclic acid. These can be useful to patients with mild psoriasis.

Emollients are valuable for helping to keep plaques pliable and prevent cracking. They also help to reduce shedding of skin cells, which patients find embarrassing. Emollients that contain humectants (e.g. urea or glycerin) are generally more effective moisturisers and have longer-lasting effects.

Suitable products available include Eucerin Dry Skin Intensive 10% Urea Treatment Cream, Hydromol Intensive and Neutrogena Dermatological.

Eumovate Eczema and Dermatitis Cream (clobetasone butyrate 0.05%) may not be supplied for the treatment of psoriasis.

Reflection exercise 4

The MUR feedback form aims to improve communication between pharmacists and GPs but some of the problems that arise for patients with psoriasis do not fit into the categories listed on the form. Take time to reflect on the situations that you have encountered (or can imagine) and work out the form(s) of words that you would use to convey the problem to the GP.

This module is also online at pharmacymagazine.co.uk

TREATMENT OF PSORIASIS

assessment questions

1. Which is NOT a feature of chronic plaque psoriasis?
a. Raised plaques
b. Reddened plaques
c. Thick, silvery scale plaques
d. Yellow/brown pustules

2. Which is NOT a feature of guttate psoriasis?
a. Widespread large, scaly lesions
b. It commonly follows a streptococcal throat infection
c. It commonly affects children and young adults
d. It clears within eight weeks with topical therapy

3. Onycholysis is the term used to describe:
a. Spontaneous shedding of nail
b. The separation of the nail from the nail bed
c. Patches of psoriasis in the nail bed
d. Cancer of the nail bed

4. Which statement is NOT TRUE about emollients in the treatment of psoriasis? They reduce:
a. The shedding of skin scales
b. Pruritus
c. Painful cracking and bleeding
d. Skin thickness

5. Which statement is FALSE about vitamin D and vitamin D analogues?
a. They are best used in combination with potent topical corticosteroids
b. They may cause hypocalcaemia
c. They do not cause skin atrophy
d. They reduce keratinocyte proliferation

6. Find the TRUE statement about dithranol:
a. It is useful for treating multiple small plaques
b. It causes temporary staining of clothing
c. Short contact treatment can be effective
d. A fixed concentration must be used

7. When treating scalp psoriasis, which of the following is TRUE?
a. Shampoo before applying other treatments to remove scale
b. Alternating vitamin D and potent corticosteroid should be used daily
c. Foam and mousse formulations are ineffective
d. A potent topical corticosteroid scalp application should be used daily

8. Which is NOT a systemic biologic agent?
a. Adalimumab
b. Methotrexate
c. Etanercept
d. Infliximab

Pharmacy Magazine CPD record

CPD June 2015

Use this form to record your learning and action points from this module on the Treatment of Psoriasis or record on your personal learning log at pharmacymagazine.co.uk. Any training, learning or development activities that you undertake for CPD can also be recorded as evidence as part of your RPS Faculty practice-based portfolio when preparing for Faculty membership. So start your RPS Faculty journey today by accessing the portfolio and tools at www.rpharms.com/Faculty

Activity completed. (Describe what you did to increase your learning. Be specific)
(ACT)

Date: Time taken to complete activity:

What did I learn that was new in terms of developing my skills, knowledge and behaviours? Have my learning objectives been met?*
(EVALUATE)

How have I put this into practice? (Give an example of how you applied your learning). Why did it benefit my practice? (How did your learning affect outcomes?)
(EVALUATE)

Do I need to learn anything else in this area? (List your learning action points. How do you intend to meet these action points?)
(REFLECT & PLAN)

You can also record in your personal learning log at pharmacymagazine.co.uk

* If as a result of completing your evaluation you have identified another new learning objective, start a new cycle. This will enable you to start at Reflect and then go on to Plan, Act and Evaluate. This form can be photocopied to avoid having to cut this page out of the module. You can also complete the module at **www.pharmacymagazine.co.uk** and record on your personal learning log

ENTER YOUR ANSWERS HERE Please mark your answers on the sheet below by placing a cross in the box next to the correct answer. Only mark one box for each question. Once you have completed the answer sheet in ink, return it to the address below together with your payment of £3.75. Clear photocopies are acceptable. **You may need to consult other information sources to answer the questions.**

1.	a. ☐	2.	a. ☐	3.	a. ☐	4.	a. ☐	5.	a. ☐	6.	a. ☐	7.	a. ☐	8.	a. ☐
	b. ☐		b. ☐		b. ☐		b. ☐		b. ☐		b. ☐		b. ☐		b. ☐
	c. ☐		c. ☐		c. ☐		c. ☐		c. ☐		c. ☐		c. ☐		c. ☐
	d. ☐		d. ☐		d. ☐		d. ☐		d. ☐		d. ☐		d. ☐		d. ☐

Name (Mr, Mrs, Ms) _____

Business/home address _____

Town _____ Postcode _____ Tel _____ GPhC/PSNI Reg no. ☐☐☐☐☐☐☐☐

I confirm the form submitted is my own work (signature) _____

Please charge my card the sum of £3.75 Name on card _____ ☐ Visa ☐ Mastercard ☐ Switch/Maestro

Card No. _____ Start date _____ Expiry date _____

Date _____ Switch/Maestro Issue Number _____

Processing of answers
Completed answer sheets should be sent to Precision Marketing Group, Precision House, Bury Road, Beyton, Bury St Edmunds IP30 9PP (tel: 01284 718912; fax: 01284 718920; email: cpd@precisionmarketing group.co.uk), together with credit/debit card/cheque details to cover administration costs. This assessment will be marked and you will be notified of your result and sent a copy of the correct answers. The assessors' decision is final and **no correspondence** will be entered into.

236