Wales Centre for Pharmacy Professional Education
Canolfan Addysg Fferylliaeth Broffesiynol Cymru

PSORIASIS (mild to moderate)

Top tips for MURs

- Check that the patient understands psoriasis is a chronic condition and that topical steroids and emollients are the mainstay of treatment
- Advise patient when applying emollients to avoid vigorous rubbing and apply in the direction of the hairs
- Counsel patient to reduce risk of contaminating emollients supplied in tubs by scooping out with a utensil and not placing hand into the tub
- Advise patient of fire risk associated with paraffin based emollients[1]
- Check patients prescribed a topical steroid have been using continuously for no more than 4 weeks. If treatment is needed beyond this time, the patient should be referred back to the prescriber, as stopping treatment suddenly can result in rebound flare of psoriasis
- Counsel patient using tazorotene not to apply emollients or cosmetics for at least one hour after application
- Advise patient to apply emollient first and allow to dry for 30 minutes before applying topical steroid
- Advise patient to apply a thin film or layer to the skin of topical steroids, vitamin D analogues and tazarotene on the affected skin only
- Check patient understands fingertip units as a standard measure for topical steroid application (**see below**)
- Advise patient with psoriasis of the scalp that ointments, gels and lotions can sting on application and should be applied by parting hair with comb, smearing treatment in to exposed areas with finger and repeating over entire scalp. Scalp preparations should be left on the scalp
- Advise patient to avoid the use of OTC NSAIDs for minor ailments as this can trigger flare ups
- Advise patient that active treatment should be used until plaques are controlled. A treatment holiday can be considered between flare ups
- Advise patient to apply topical products with protective gloves as may stain clothing, skin and hair or to wash hands thoroughly after application of topical preparations to avoid inadvertent transfer to other body areas.
- Counsel patient on common side effects (see overleaf) and signs and symptoms of complications that need referral (**see red flags overleaf**)
- Check women taking acitretin and of child-bearing potential are following a pregnancy prevention program2 and that they should avoid pregnancy for three years after stopping treatment
- Advise patients taking acitretin to avoid blood donation during treatment and for at least 3 years after stopping treatment
- Check patients taking acitretin are having regular liver function tests (every 2-4 weeks for first 2 months, then every 3 months) and regular serum triglyceride and cholesterol tests (1 month initially then every 3 months)
- Advise patients taking topical vitamin D analogues, tazarotene, acitretin, coal tar or received phototherapy to use sun protection and to minimise exposure to direct sunlight or sunlamps
- Check patients taking tacalcitol have had their serum calcium levels monitored regularly if at risk of hyperkalaemia
- Report any relevant side-effect to the Yellow Card Scheme

Pathophysiology of psoriasis

Psoriasis is a chronic skin condition characterised by an over-proliferation of the epidermis resulting in well demarcated skin plaques covered with silvery scale[3]. Capillaries in the plaques are dilated and there is an abnormally large number of T-cells in the dermis which trigger cytokines and cause inflammation, redness, itching and flakey skin patches[3]. Plaque psoriasis is the most common form affecting extensor (elbows and knees) surfaces, the trunk and flexor surfaces including genital areas. Psoriasis of the scalp results in very thick scales that can be difficult to treat. The nails are also affected in up to 50% of patients. The cause of psoriasis is not fully understood and cannot be cured but can be controlled.

Lifestyle issues

- Counsel patient on reducing alcohol intake to within safe limits as high alcohol intake can exacerbate psoriasis (up to 14 units a week, spread evenly over 3 or more days with several alcohol free days)
- Advise patients to stop smoking as smoking can exacerbate psoriasis. Refer to Stop Smoking Wales or Pharmacy Stop Smoking services if willing to stop
- Advise patient that stress management may be helpful, as flare ups often coincide with stressful events
- Counsel patient on healthy eating, exercise & weight loss (if BMI > 25kg/m^2) – reduce saturated fat and salt intake, avoid salt substitutes, increase oily fish intake, complete 30 minutes of aerobic exercise three to five times a week, reduce caffeine intake to no more than 5 cups a day and recommend 5 portions of fruit and vegetables a day

Fingertip units for steroid use

Body site	Fingertip units (FTUs) required				
	Adults	Children (3-6 months)	Children (1-2 years)	Children (3-5 years)	Children (6-10 years)
Face and neck	2.5	1	1.5	1.5	2
Arm and hand	4	1	1.5	2	2.5
Leg and foot	8	1.5	2	3	4.5
Trunk (front)	7	1	2	3	3.5
Trunk (back) including buttocks	7	1.5	3	3.5	5

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Expert review: Lorna Pearce, ABMU, March 2014
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How do drugs used to treat psoriasis work?

Emollients	Forms an occlusive barrier to rehydrate and soften skin which protects the skin against flare up triggers and infections and promotes the penetration of other topical products.
Topical corticosteroids	Reduces skin inflammation by suppression of the production of inflammatory substances such as prostaglandins and leukotrienes, as well as inhibiting the recruitment of inflammatory cells into the skin.
Calcipotriol, calcitriol & tacalcitol	These vitamin D analogues suppress keratinocyte differentiation and proliferation of epithelial cells.
Topical coal tar products	Descales thin skin plaques; may reduce inflammation and proliferation of epithelial cells.
Topical salicylic acid	Descales skin plaques to facilitate topical treatment. Thick scale can be removed using a salicylic acid preparation to allow topical steroid treatments to penetrate more effectively.
Topical dithranol	Has an anti-proliferative effect in epidermal keratinocytes by interfering with the DNA replication of cells as well as an anti-inflammatory effect.
Topical tazarotene	The exact mechanism of action is unknown but it normalises epidermal keratinocyte proliferation. Avoid use in pregnancy and breastfeeding. Should not be applied to the face and flexures.
Acitretin	Normalises cell differentiation and thins the cornified layer by directly reducing the keratinocytes' rate of proliferation. It also has anti-inflammatory and anti-proliferative actions which reduce the scaling, erythema and thickness of psoriatic lesions.

Severe psoriasis can be treated with methotrexate, ciclosporin and cytokine modulators (adalimumab, etanercept, infliximab, ustekinumab, apremilast) but are not covered in this MUR guide.

Red flags that need referral

- Severe, widespread unstable psoriasis or psoriasis not responding to topical treatments
- Acute guttate psoriasis (small red lesions covering the trunk and limbs)
- Generalised pustular-type psoriasis or erythroderma (redness and scaling affecting entire body)
- Significant impact on psychological well-being or depression (very common in patients with psoriasis)
- Signs of rheumatoid or joint disease (to rule out psoriatic arthritis)
- Pregnancy in patients taking acitretin due to teratogenicity, which remains a risk for 3 years
- Signs of infection in skin plaques

What are the common side effects to look out for?

Common side effects	Recommendation
Itching, redness, burning, dry skin or dermatitis	Advise patient that the burning will diminish after a few days and to increase use of emollients for dry skin. Stop treatment & refer to prescriber if burning sensation continues or if lesions spread. Advise patients using dithranol to avoid use on face and skin flexures.
Excessive drying of skin (salicylic acid)	Wash hands after applying. Avoid contact with mouth, eyes & mucous membranes. If persistent refer to prescriber.
Staining of skin, hair, clothes, shower and bath **(most commonly seen with dithranol & coal tar)**	Wash with detergent and hot water after contact period. Advise patient to apply carefully using gloves and to wash hands.
Dry eyes, dry mouth, dryness around the eyes, nose bleeds and conjunctivitis **(most commonly seen with acitretin)**	Advise patient to use lubricating eye ointments or tear replacement drops for dry eyes and antibacterial drops for conjunctivitis. Refer to prescriber if intolerable or to eye specialist if a contact lens wearer. Advise patient to use regular lip moisturiser.
Atrophy / thinning of skin, rosacea, acne, stretch marks, small dilated blood vessels and bruising **(most commonly seen with topical steroids)**	Reassure patient that the thinning of skin will be restored over a period of time after stopping treatment. Advise patient to ensure they apply the topical steroid *thinly* to only the affected areas, no more than twice a day for the shortest period possible, at the lowest strength required. Refer to prescriber if intolerable.
Headache, myalgia, arthralgia, peripheral oedema and alopecia **(most commonly seen with acitretin)**	Advise patient that hair loss is reversible on stopping treatment. Refer to prescriber.

Potential serious drug interactions?

Drugs used to treat psoriasis can interact with other medicines – **See BNF Appendix1: Interactions for more details**

- Acitretin interacts vitamin A (↑ risk of hypervitaminosis A), anticoagulants (reduced anticoagulant effect of coumarins), methotrexate (↑ risk of hepatoxicity) and tetracycline (↑ risk of intracranial hypertension)
- Ciclosporin interacts with many medications and may affect BP, renal function and cholesterol levels so regular testing is important
- Methotrexate interacts with many medications, including NSAIDs (risk of toxicity) and antibacterials

Where can you find more information?

- The management and treatment of skin conditions; distance learning pack found on the WCPPE website (**http://www.wcppe.org.uk**)
- NICE evidence search - psoriasis (**http://www.evidence.nhs.uk**)
- Primary Care Dermatology Society (**http://www.pcds.org.uk**)

References

1. Alert 1028 –Fire hazard with paraffin based products. November 2007. National Patient Safety Agency
2. The management and treatment of skin conditions, CPPE 2007
3. British Association of Dermatologists (www.bad.org.uk)

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