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PrescQIPP
Community Interest Company

Cost-effective prescribing in dermatology

This bulletin provides an overview of appropriate, cost-effective topical treatment choices for eczema and psoriasis, topical corticosteroids and dermatology specials. This bulletin should be read in conjunction with the following resources on the cost-effective use of emollients and shampoo and scalp preparations:

- 228. Emollients, paraffin content and fire risk
- 239. Emollients
- 244. Bath and shower emollient preparations
- 312. Shampoos and scalp preparations

Recommendations

- Educate patients about their condition and the importance of adherence to their treatment as this is a crucial part of management. Ensure that emollients are used regularly and in appropriate quantities throughout treatment.
- Use a licensed topical product in preference to dermatology specials.
- Prescribe appropriate quantities, specific to the body area.
- Ensure that topical preparations are added to the acute rather than repeat prescriptions (or if appropriate for management, 'variable repeat') to ensure there is a regular review of the continued need.
- Topical corticosteroid therapy forms the main treatment for the management of flares of eczema.
- Vitamin D analogue monotherapy (calcipotriol, calcitriol, tacalcitol) and/or corticosteroid therapy are first line treatments for the majority of patients with chronic plaque psoriasis. If both vitamin D and a corticosteroid are needed together, prescribe these separately, one in the morning and the other in the evening, rather than using a combination product.

Topical corticosteroids

- Do not initiate very potent topical corticosteroids in primary care.
- Use the most cost-effective topical corticosteroid of the lowest potency required taking into account patient formulation preference, pack size needed for the area to be covered and frequency of application.
- Educate patients on the amount of topical corticosteroid to be used in fingertip units and how long it should be used for, especially when used on sensitive parts of the body such as the face and genitals.
- Provide patients with information about the potential side effects of topical corticosteroids and give reassurance that these are reduced when used appropriately. Advise patients to carry a steroid treatment card if they are receiving long term treatment (several weeks) with a potent or very potent topical corticosteroid.

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Recommendations

- Use short term or intermittently. If maintenance use is required, reduce use such as, for psoriasis, using for two days per week or using non steroid based treatments.
- Consider reducing the potency or frequency of application (or both) for patients currently receiving long-term topical corticosteroid treatment.
- Healthcare professionals should look for the signs and symptoms of topical corticosteroid withdrawal reactions.
- Avoid using combined corticosteroid/antimicrobial preparations as this will increase the risk of antibiotic resistance.

Vitamin D analogues

- When a vitamin D analogue is required, use the least costly preparation suitable for the individual. Dovonex® (calcipotriol) ointment is the least expensive of the vitamin D analogue preparations when used at the maximum weekly (100g) application for four weeks.
- A potent corticosteroid and vitamin D/vitamin D analogue (one applied in the morning and the other in the evening) are offered first-line for psoriasis of the trunk and/or limbs.
- For trunk and limb psoriasis, the calcipotriol/betamethasone combination preparation is recommended as a fourth line treatment in adults but is not recommended in children or adolescents.
- For scalp psoriasis, the calcipotriol/betamethasone combination preparation is recommended as a 3rd line treatment in adults and children or adolescents. Use in children is unlicensed and initiation should be restricted to secondary care specialists.
- The calcipotriol/betamethasone combination preparation should not be used for the face, flexures or genitals in adults or children. It should only be used once daily, for a maximum duration of four weeks and should only be prescribed as acute treatment. It should not be routinely added to repeat prescribing lists.
- Enstilar® foam is more expensive than Dovobet® gel and generic calcipotriol/betamethasone gel, but may be considered as an alternative to these preparations to aid adherence to treatment.
- Calcipotriol scalp solution for the treatment of scalp psoriasis is expensive and should only be used in people who are intolerant of, or cannot use, topical corticosteroids and have mild to moderate scalp psoriasis.

Dermatology specials products

- Develop a local formulary with dermatologists that lists the dermatology specials that can be prescribed and where they can be obtained from.
- If an unlicensed topical preparation is required, consider prescribing only those listed on the British Association of Dermatologists (BAD) list.
- Consider agreeing treatment pathways or commissioning a service where any prescribing of specials remains under the care of dermatologists.
- Where a special is prescribed, ensure it is placed on acute prescription and regularly review the continued need for the product.
- Review the prescribing of any dermatology specials which are non-formulary or not on the BAD list and assess if there is a continued need for prescribing. If needed, consider whether a licensed, formulary or BAD list preparation would be a suitable alternative for the individual.
- Be aware that dermatology specials' expiry dates are likely to be short. Prescribe appropriate quantities to reduce potential waste due to the short expiry date.

Background

Eczema

Eczema (also known as dermatitis) refers to a variety of skin conditions characterised by epidermal inflammation and itching. The main types of eczema are irritant, allergic contact, atopic, venous and discoid. Atopic eczema is one of the most common types of eczema and it usually involves itchy, red, dry skin which can become infected and lichenified.[1] Atopic eczema develops in early childhood in most cases. It is normally an episodic disease with exacerbations (flares) and remissions. Flares may be as frequent as two or three per month. In some severe cases it may be continuous (2 to 6% of cases). There is frequently a genetic component that leads to the breakdown of the skin barrier which makes the skin susceptible to trigger factors such as irritants or allergens making the eczema worse.[2]

It affects about one in five children in the UK.[2] About one third of all new cases occur in adults. Most children outgrow their atopic eczema as they get older, although those with more severe eczema are less likely to outgrow it.[3] Approximately 80% of children develop atopic eczema before the age of six years, but all ages can be affected. The prevalence in young adults up to 26 years old is 5 to 15%.[4]

Eczema can develop on any area of skin, however different distribution patterns are often seen at different stages of life:

- In children younger than two years of age, eczema typically arises on the face, trunk, and limbs including the extensor surfaces.
- In older children and adults, involvement of the neck and flexural aspects of the limbs (on the inside of joints, such as behind the knees and in the elbow creases) is common, as is involvement of the hands.[5]

The severity and extent of eczema are extremely variable, ranging from:

- Mild eczema, with localised, occasionally dry, mildly scaly patches.
- Moderate eczema, with slightly more redness and swelling, with little or no oozing or crusting.
- Severe, generalised involvement of the whole body, resulting in acute skin failure with widespread, red, oozing, secondarily infected lesions.[5]

Psoriasis

Psoriasis is an inflammatory skin disease that typically follows a relapsing and remitting course. It occurs at any age, but the majority of cases occur before the age of 35. It is uncommon in children (0.71%). The prevalence of psoriasis in the UK is approximately 1.3–2.2%.[6]

Most patients (about 90%) have plaque psoriasis which is characterised by well-delineated red, scaly plaques that range from a few localised patches to generalised involvement, e.g. scalp, facial psoriasis.[6] Other types of psoriasis include:

- Seborrhoeic psoriasis
- Localised pustular psoriasis on palms and soles
- Nail psoriasis
- Guttate psoriasis
- Flexural psoriasis
- Generalised pustular or erythrodermic psoriasis (rare medical emergencies, may be life threatening).[6,7]

Difficult-to-treat sites involve the face, flexures, genitalia, scalp, palms and soles. These sites can be resistant to treatment, may result in functional impairment and require particular care when prescribing topical therapy.[6] There is no cure for psoriasis. Treatment is aimed at inducing remission or controlling symptoms.[7]

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The National Institute for Health and Care Excellence (NICE) clinical guideline on the assessment and management of psoriasis [CG153] recommends referring children and young people with any type of psoriasis to a specialist at presentation.[6]

The impact and severity of psoriasis should be assessed. Tools for disease assessment have been associated with improved clinical outcomes in a specialist setting (e.g. their use has resulted in improved awareness of disease impact and ineffective treatments being stopped). NICE recommends that if practical, non-specialist settings, e.g. primary care, should use a validated tool to assess the impact of any type of psoriasis on physical, psychological and social wellbeing.[6] For example, the Dermatology Life Quality Index (DLQI) for adults or the Children's Dermatology Life Quality Index (CDLQI) for children and young people.[6,8,9]

When assessing psoriasis severity in any healthcare setting, the following should be recorded:[6]

- The results of a static physician's global assessment (classified as clear, nearly clear, mild, moderate, severe or very severe).
- The patient's assessment of current disease severity, for example, using the static patient's global assessment (classified as clear, nearly clear, mild, moderate, severe or very severe).
- The body surface area affected.
- Any involvement of nails, high-impact and difficult-to-treat sites (for example, the face, scalp, palms, soles, flexures and genitals).
- Any systemic upset such as fever and malaise, which are common in unstable forms of psoriasis such as erythroderma or generalised pustular psoriasis.

The Psoriasis Area and Severity Index (PASI) is also a validated tool that measures disease severity in adults with severe chronic plaque psoriasis.[6,7]

Psoriasis that cannot be controlled by topical treatment should be referred to secondary care for further assessment and treatment options (these include phototherapy and systemic treatment). Also, topical treatments alone are unlikely to be effective if the person has:

- Extensive disease (e.g. greater than 10% of body surface area affected) or
- A score of at least 'moderate' on the static Physician's Global Assessment or
- Psoriasis that does not respond well to topical treatments (e.g. nail involvement).[6,7]

Assessment of skin disease

Quality of life measurements across all skin diseases can be carried out using the Dermatology Life Quality Index (DLQI) validated tool for adults (16 years and older), or the Children's Dermatology Life Quality Index (CDLQI) for children between the ages of 4 and 16 years. Scores range from 0-30. The higher the score, the more quality of life is impacted. A score of >10 for adults or >12 in children indicates that their skin disorder is having a very large or extremely large effect on their quality of life. There is also a Teenager's Quality of Life Index (T-QoL) for ages 12 years to 19 years, where the higher the score, the greater the impairment of quality of life.[10] A free, official e- version of the DLQI for adults is available for Android and Apple devices and is named the DLQI: The Official App, which can be used by clinicians and patients.[8]

Patient education and adherence to treatment for eczema and psoriasis

NICE [CG153] recommend that patients be given both verbal and written information on treatment options. People must also be supported to adhere to treatment.[6] The BAD and the Primary Care Dermatology Society (PCDS) have produced appropriate leaflets and webpages for people to read.[11,12] Information to facilitate discussion on the risks and benefits of treatments (including the numbers achieving remissions with treatment) for people with psoriasis is contained in NICE [CG153] Appendix S.[13]

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Patient information on eczema and psoriasis is available at:

- Atopic eczema: https://www.bad.org.uk/pils/atopic-eczema/
- Eczema: https://www.nhs.uk/conditions/atopic-eczema/
- Psoriasis – an overview: https://cdn.bad.org.uk/uploads/2021/12/29200253/Psoriasis-an-overview-update-October-2018-Lay-review-October-2018.pdf
- Treatments for psoriasis: https://www.psoriasis-association.org.uk/treatments-for-psoriasis
- Psoriasis – topical treatments: https://www.skinhealthinfo.org.uk/condition/topical-treatments-for-psoriasis/

There are numerous Apps available on the treatment of eczema and psoriasis. An example is:

- My Eczema Tracker (The University of Nottingham) – track eczema symptoms weekly using two validated questionnaires, Patient Oriented Eczema Measure (POEM) and Recap of atopic eczema (RECAP). The app helps track eczema symptoms and control over time and is available for Apple and Android phones.

Patient support groups can be found at:

- The Psoriasis Association www.psoriasis-association.org.uk
- Psoriasis and psoriatic Arthritis Alliance www.papaa.org
- British Association of Dermatologists (BAD) https://www.skinhealthinfo.org.uk
- British Skin Foundation www.britishskinfoundation.org.uk
- National Eczema Society https://eczema.org/information-and-advice/local-eczema-support-groups/

Topical application in eczema and psoriasis

When offering topical agents take into account patient formulation preference, cosmetic acceptability, practical aspects of application and the site(s) and extent of psoriasis to be treated. It is important to discuss the variety of formulations available with the individual. Depending on the person's preference, use:

- Cream, lotion or gel for widespread psoriasis, moist or weeping lesions and some patients may find them more cosmetically acceptable especially when used on visible areas such as the hands and face.[7,14]
- Lotion, solution or gel for the scalp or hair-bearing areas.[7]
- Ointment to treat areas that are dry or lichenified or have a thick adherent scale in psoriasis.[7] As they are occlusive, they may increase the penetration of topical corticosteroids. Ointments can be less prone to irritating the skin as they often do not contain a preservative. They are greasy and so may be more suitable for use at night.[15]
- Tapes and plasters are available for use on areas of very thick skin. Their occlusive effect increases the absorption of corticosteroids but also the risk of adverse effects. Use should be short term and under the supervision of a specialist.[14] Consider corticosteroid impregnated plasters which can be left on for up to 24 hours before reapplying, e.g. Betesil® 2.25mg medicated plasters (betamethasone valerate 2.25mg).[1]

Recommendations for topical therapy

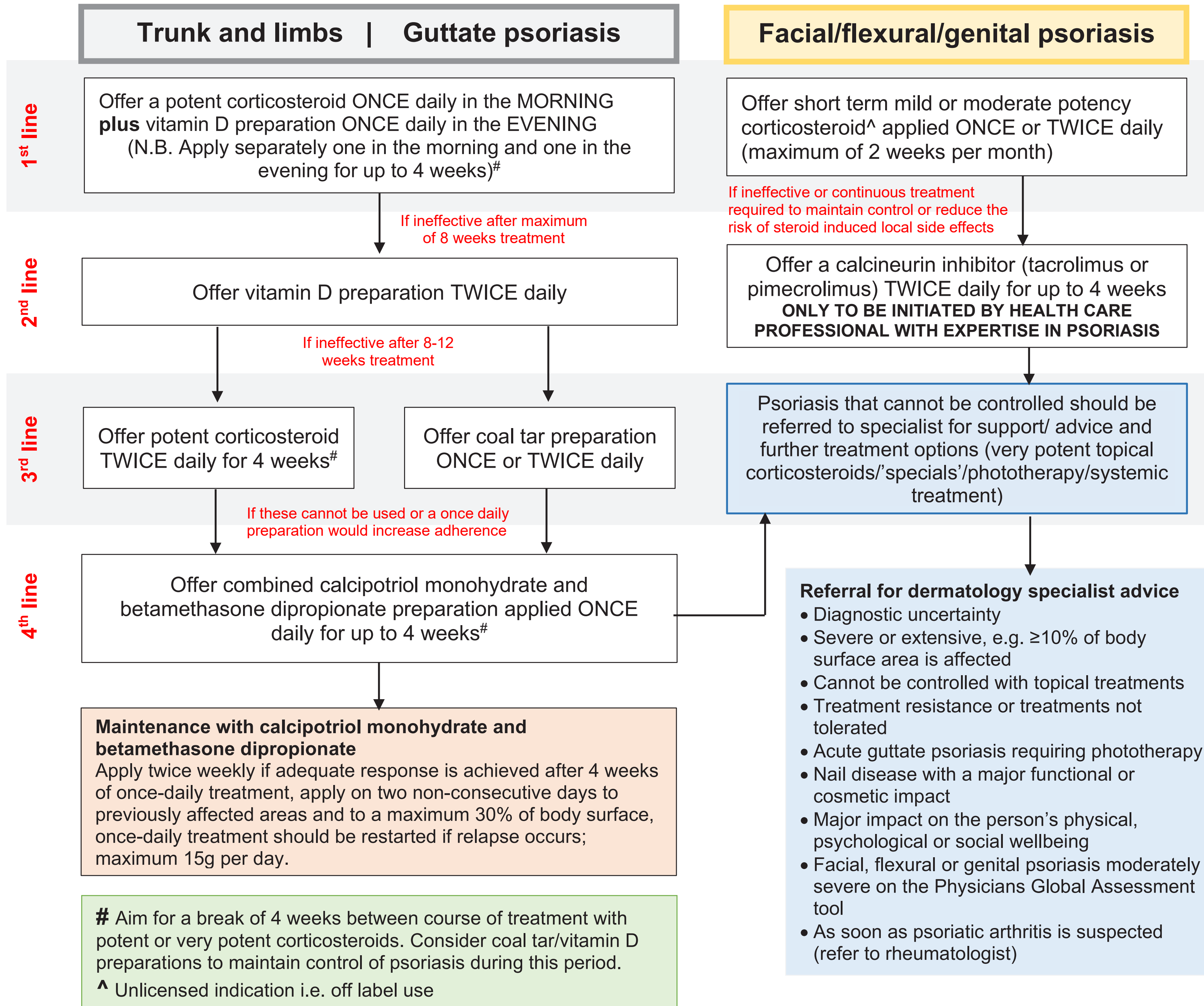
Topical treatment options for psoriasis and eczema are summarised in the treatment algorithms on pages seven to ten. They are also included in attachments 1 and 2 accompanying this bulletin.

- Patients should be reviewed to assess progress and to ensure that the patient is correctly using the

preparation.[6]

- Arrange a review appointment four weeks after starting a new topical treatment in adults with psoriasis and at two weeks for children with psoriasis. During the review evaluate tolerability, toxicity, and initial response to treatment. Reinforce the importance of adherence and discuss the next treatment option, if there is little or no improvement, or long-term management as appropriate.[6]
- For people with eczema, review emollient use on an annual basis. Review maintenance topical corticosteroid therapy at three to six months to assess effectiveness. However, if there is heavy use more regular review is required.[15] Where topical corticosteroids are prescribed to manage a flare up, review the person after one to two weeks to discuss long term management of eczema.[3]
- The review may be incorporated into a telephone consultation.
- If there is a poor initial response after the first two to four weeks check compliance. Ask the person if they have any difficulties with application, cosmetic acceptability or tolerability. Check adherence and ask about the presence of adverse effects or any other issues to ascertain the reason for failure.[3,6]
- With scalp preparations, particularly shampoos, ensure that the preparation has been in contact with the scalp for the correct amount of time, e.g. 15 minutes for Etrivex® shampoo.[1]

Algorithm 1: Topical treatment of psoriasis in adults[1,6,7] (Adapted from Herts Valley CCG) You can adapt this for local use



Immediate same-day specialist assessment and treatment

- Generalised pustular psoriasis
- Erythroderma

At every stage review: lifestyle, depression, smoking cessation, obesity, alcohol, stress, anxiety.

Discuss:

- The importance of continuing treatment until a satisfactory outcome is achieved (for example 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 when needed to maintain satisfactory disease control (see maintenance)

Offer emollients throughout the treatment pathway - refer to BNF and PrescQIPP 239. Emollients

Patient information leaflets available from:
www.psoriasis-association.org.uk
www.bad.org.uk

Algorithm 1: Topical treatment of psoriasis in adults[1,6,7] (Adapted from Herts Valley CCG) You can adapt this for local use

Scalp psoriasis

1st line

Offer a potent corticosteroid ONCE daily for up to 4 weeks#

If ineffective after maximum of 4 weeks treatment

2nd line

Check adherence to treatment. Consider using a different formulation of the potent corticosteroid (for example, a shampoo or mousse) and/or topical agents to remove adherent scale (for example, agents containing salicylic acid, emollients and oils)

If ineffective after a further 4 weeks treatment

3rd line

Offer combined calcipotriol monohydrate and betamethasone dipropionate preparation applied ONCE daily for up to 4 weeks#

Offer vitamin D preparation applied ONCE daily for 8 weeks (only in those who cannot tolerate steroids or with mild to moderate scalp psoriasis).

If ineffective after specified duration

4th line

Offer very potent corticosteroid up to TWICE daily for 2 weeks#
OR Coal tar applied ONCE or TWICE daily (coal tar-based shampoos should not be used alone in severe scalp psoriasis) **OR**

Psoriasis that cannot be controlled should be referred to specialist for support/ advice and further treatment options (very potent topical corticosteroids/'specials'/phototherapy/systemic treatment)

Referral for dermatology specialist advice

- Diagnostic uncertainty
- Severe or extensive, e.g. ≥10% of body surface area is affected
- Cannot be controlled with topical treatments
- Treatment resistance or treatments not tolerated
- Acute guttate psoriasis requiring phototherapy
- Nail disease with a major functional or cosmetic impact
- Major impact on the person's physical, psychological or social wellbeing
- Facial, flexural or genital psoriasis moderately severe on the Physicians Global Assessment tool

Aim for a break of 4 weeks between course of treatment with potent or very potent corticosteroids. Consider coal tar/vitamin D preparations to maintain control of psoriasis during this period.

Immediate same-day specialist assessment and treatment

- Generalised pustular psoriasis
- Erythroderma

At every stage review: lifestyle, depression, smoking cessation, obesity, alcohol, stress, anxiety.

Discuss:

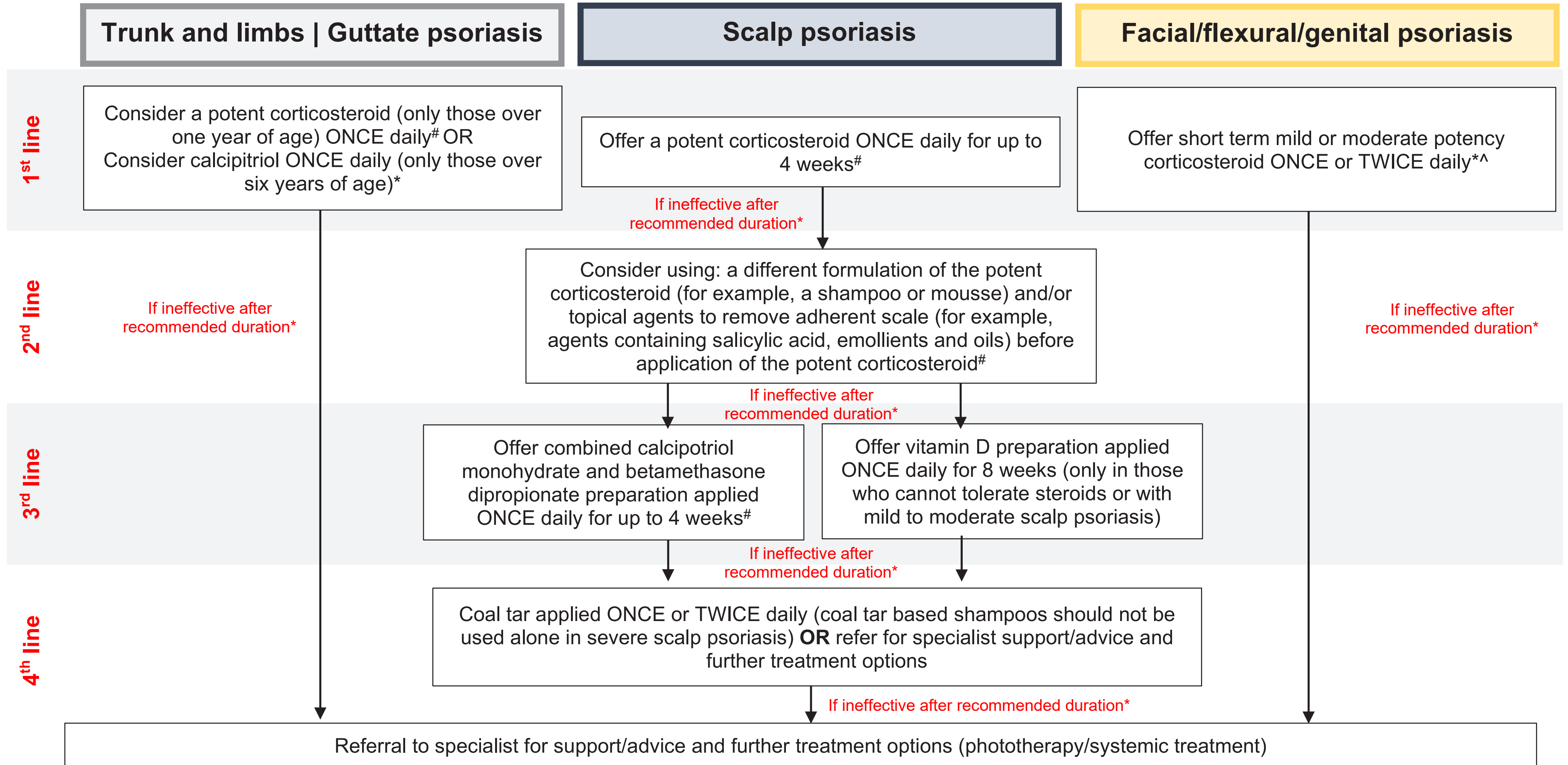
- The importance of continuing treatment until a satisfactory outcome is achieved (for example clear or nearly clear) or up to the recommended maximum treatment period for corticosteroids
- That relapse occurs in most people after treatment is stopped
- That after the initial treatment period topical treatments can be used when needed to maintain satisfactory disease control (see maintenance)

Offer emollients throughout the treatment pathway - refer to BNF and PrescQIPP 239. Emollients

Patient information leaflets available from:
www.psoriasis-association.org.uk
www.bad.org.uk

Algorithm 2: Topical treatment of psoriasis in children[1,6,7,16] (Adapted from Herts Valley CCG)

Children and young people with any type of psoriasis should be referred to secondary care at presentation. Most topical treatments should be initiated by a specialist. Duration of treatment should be clearly stated when requesting the GP to continue prescribing or for repeat courses. Do not use very potent corticosteroids.



Aim for a break of 4 weeks between course of treatment with potent or very potent corticosteroids. Consider coal tar/vitamin D preparations to maintain control of psoriasis during this period

***** Refer to BNF for Children for information on appropriate dosing and duration of treatment

^ Unlicensed indication i.e. off label use

Algorithm 3. Atopic eczema

This can be adapted locally

Atopic eczema[1-3,14,15,17,18]

Management can be stepped up or down according to the severity of the symptoms

Objective Measurements of Severity, Quality of Life and Response to Treatment

<12 years old	Adults
Visual analogue scale 0-10	SCORAD
Patient orientated eczema measures (POEMs)	Dermatology Life Quality Index
Children's Life Dermatology Quality of Index (CDLQI)	

↓

Identify and eliminate triggers[2,3]

- Irritant allergens: soaps, detergents, preservatives
- Contact allergens: clothing, latex
- Skin infections
- Inhaled: pollen, dust mite, candles, perfumes
- Food, hormonal, climate, concurrent illness and disruption to family life

↓

Maintenance emollients form the basis of treatment[1-3,15]

- Should be used on the whole body every day including when the atopic eczema is clear and while using all other treatments
- Use regularly, often needed four times daily
- Prescribe generous amounts, e.g. 500g to encourage use
- Choose emollient according to the dryness of skin and individual preference/tolerance
- Ideally use emollient first, then wait several minutes (about 15–30 minutes) before applying the topical corticosteroid (only after the emollient has been fully absorbed)
- Remove from the container with a spatula to avoid contamination
- Avoid emollients with preservatives and perfumes
- Bath additives are not recommended
- Any emollient can be added to the bath

↓

Flare: Topical corticosteroids

Prescribe the least potent corticosteroid that relieves symptoms and an appropriate formulation and quantity. Taper the treatment by using a less potent corticosteroid once the flare-up is under control.[14] Clinicians should also educate patients on the amount of product to be used and the optimal duration of treatment, particularly on sensitive parts of the body, including the face and genitals.[14,17] See tables 1 and 2 on page 13.

General points: Start treatment as soon as sign and symptoms appear and continue for 48 hours after symptoms subside. Use appropriate strength corticosteroid once (or twice) daily for 7-14 days. Review at 2 weeks if not cleared.[2,15] Avoid corticosteroids on repeat prescription.

Children: Only apply to active atopic eczema or eczema that has been active within the last 48 hours. Consider treating problem areas of atopic eczema with topical corticosteroids for 2 consecutive days per week to prevent frequent flares (2 or 3 per month), once the eczema has been controlled. Review after 3-6 months.[2]

If severe itch or urticaria in children with mild or moderate eczema or severe atopic eczema consider a one month trial of non sedating antihistamine. Oral antihistamines should not be used routinely in the management of atopic eczema in children. Treatment can be continued, if successful, while symptoms persist, and should be reviewed every 3 months.[2]

Healthcare professionals should offer a 7 to 14-day trial of an age-appropriate sedating antihistamine to children aged 6 months or over during an acute flare of atopic eczema if sleep disturbance has a significant impact on the child or parents or carers. This treatment can be repeated during subsequent flares if successful.[2]

Immediate referral[2] (same day):

- Suspected eczema herpeticum; secondary bacterial infection of eczema with signs of more serious illness, e.g. sepsis

Urgent referral[2] (2 weeks):

- Severe eczema that has not responded to optimum topical treatment after 1 week.
- If infected, eczema has not responded to treatment.

Referral[2,15]

- Diagnostic uncertainty
- Unsatisfactory control with treatment
- Facial eczema not responded to treatment
- Special advice on treatment application
- Significant social or psychological problems
- Severe and recurrent infections, especially deep abscesses or pneumonia
- Contact allergic dermatitis suspected

For mild eczema[2,14]	Moderate eczema[2,14]	Severe eczema[2,14]
• Emollients • Mildly potent topical corticosteroid	• Emollients • Moderately potent corticosteroid • Non-sedating antihistamine (if severe itch/urticaria) • Physicians (including general practitioners) with a special interest and experience in dermatology: topical calcineurin inhibitors - tacrolimus, pimecrolimus; occlusive dressings or dry bandages	• Emollients • Potent topical corticosteroid • Non-sedating antihistamine (if severe itch / urticaria); sedating antihistamine (maximum 2 weeks) if itching is severe and affecting sleep • Physicians (including general practitioners) with a special interest and experience in dermatology: topical calcineurin inhibitors -tacrolimus, pimecrolimus; occlusive dressings or dry bandages • Secondary care referral: phototherapy; immunosuppressants

Topical corticosteroids regimen for maintenance

Review every 3-6 months to assess effectiveness; use stepdown or intermittent therapy[14,15]

Body: Use lowest potency topical corticosteroid that controls the eczema; this will be a potency class down from what is used during a flare.

Intermittent: weekend therapy (use for 1-2 consecutive days per week) or twice weekly (use usual topical twice per week).[15]

Face, genitals or axilla: Consider mild topical corticosteroid, if this fails to control then consider referral.[6]

For maintenance **of chronic eczema**, advise the person:

- To apply the topical corticosteroid once daily (on treatment days).
- That the treatment should be continued indefinitely, although an occasional drug holiday is advisable when step down treatment is being used.[15]

Infants < 6 months and moderate to severe eczema not controlled by emollients or mild topical corticosteroids

- 6 to 8-week trial of extensively hydrolysed protein formula or amino acid formula in place of cow's milk formula for bottle fed infants.
- Refer children with atopic eczema who follow a cow's milk-free diet for longer than 8 weeks for specialist dietary advice.[2]

Secondary bacterial infections of eczema[17]

If not systemically unwell, do not offer either a topical or oral antibiotic.

Topical antibiotic: If a topical antibiotic is appropriate: Fusidic acid 2% apply three times daily for five to seven days. Extended or recurrent use may increase the risk of antimicrobial resistance.

Oral antibiotic: If an oral antibiotic is indicated: First choice flucloxacillin

If flucloxacillin is unsuitable (and not pregnant): clarithromycin

Penicillin allergy and pregnant: erythromycin

Meticillin-resistant staphylococcus aureus suspected or confirmed: consult local microbiologist

Leaflets

Atopic eczema

Eczema Fact sheets

PCDS management plan

National Eczema Society and British Association of Dermatologists joint position statement on Topical Steroid Withdrawal

Table 1: Finger tip units* of topical corticosteroid preparations to apply to specific areas[6]

Number of fingertip units* (FTUs) for adults and children					
Age	Face and neck	One arm and hand	One leg and foot	Trunk (front)	Trunk (back) including buttocks
Adult	2.5	4	8	7	7
3-12 months child	1	1	1.5	1	1.5
1-2 years old child	1.5	1.5	2	2	3
3-5 years old child	1.5	2	3	3	3.5
6-10 years old child	2	2.5	4.5	3.5	5

* One adult fingertip unit (FTU) is the amount of ointment or cream expressed from a tube with a standard 5mm diameter nozzle, applied from the distal crease to the tip of the index finger.

Table 2: Suitable quantities for an adult for a single application for 2 weeks of topical corticosteroid preparations[5]

Area of body	Face and neck	Both hands	Scalp	Both arms	Both legs	Trunk	Groins and genitalia
Quantity	15g-30g	15g-30g	15g-30g	30g-60g	100g	100g	15g-30g

Topical corticosteroids

The choice of topical corticosteroid including the potency and formulation is determined by the condition being treated and stage, area of the body affected, age of the patient, duration of treatment, condition of skin (e.g. frail elderly), frequency of application, and occlusion. The patient's preference should also be taken into account. The patient should be advised on how to apply the topical corticosteroid (i.e. applying in the direction of the hair when using on hair bearing areas to help prevent folliculitis). Topical corticosteroid prescribing should be short term or intermittent (see maintenance treatment in algorithm).[14,15]

Adverse effects

Topical corticosteroids are an effective and acceptable treatment for psoriasis and eczema but with prolonged usage may cause skin atrophy, telangiectasia, hypopigmentation and rarely systemic absorption. There may be a risk of relapse or rebound of the condition being treated (e.g. psoriasis or eczema) when discontinuing treatment.[14,15]

Local adverse effects are more common. They mostly occur on the face, in skin folds, and in areas that are treated over the long term. Local adverse effects include:

- Transient burning or stinging — this is common, especially in the first two days of application on untreated, inflamed skin. It does not usually require a change of treatment, as it improves as the skin responds to treatment.
- Worsening and spreading of untreated infection.
- Thinning of the skin — the skin improves after stopping treatment.
- Permanent striae.
- Allergic contact dermatitis — due to the corticosteroid or the excipients.
- Acne vulgaris (or worsening of existing acne) or acne rosacea.
- Mild depigmentation — usually reversible.
- Excessive hair growth at the site of application (hypertrichosis).[15]

Systemic adverse effects are rare, but may include:

- Adrenal suppression.
- Cushing's syndrome.
- Growth suppression in children.[15]

The Medicines and Healthcare products Regulatory Agency (MHRA) reports that long-term continuous or inappropriate use of topical corticosteroids, particularly those of moderate to high potency, can result in the development of rebound flares after stopping treatment. There are reports of such flares taking the form of a dermatitis with intense redness, stinging, and burning that can spread beyond the initial treatment area. The MHRA advises to inform patients to return for medical advice if their skin condition worsens and to be vigilant for the signs and symptoms of topical steroid withdrawal reactions while using topical corticosteroid and advise them when it would be appropriate to re-treat without a consultation. For patients currently on long-term topical corticosteroid treatment, consider reducing potency or frequency of application (or both).[17] Refer to the position statement from the National Eczema Society and British Association of Dermatologists

The NICE Clinical Knowledge Summary (CKS) on topical corticosteroids recommends that patients carry a steroid treatment card if they are receiving long term treatment (several weeks) with a potent or very potent topical corticosteroid. The NICE CKS considers this good practice on the basis that most topical corticosteroids may, under certain circumstances, be absorbed in sufficient amounts to cause systemic adverse effects.[14] NHS Steroid Emergency Cards can be issued at a community pharmacy, hospital, or

GP practice. The SNOMED code, Steroid treatment card issued (finding) SCTID: 711121000000102, steroid treatment card (READ code 8B317) can be used to indicate that a card has been given.

More information on implementing the steroid emergency card can be found at https://www.prescqipp.info/news/prescqipp-hot-topics-implementing-the-nhs-steroid-emergency-card-national-patient-safety-alert-natpsa/

Advice to patients about appropriate usage of topical corticosteroids

Topical corticosteroids should be spread thinly on the skin but in sufficient quantity to cover the affected areas. The length of cream or ointment expelled from a tube can be measured in terms of a fingertip unit (the distance from the tip of the adult index finger to the first crease, equivalent to approximately 500mg). The number of fingertip units needed to cover different areas of the body with a topical corticosteroid cream or ointment according to age is shown in table 1. One fingertip unit can also be thought of as the amount required to treat a skin area about twice that of the flat of the hand with the fingers together.[14]

Table 1: Finger tip units of topical corticosteroid preparations to apply to specific areas[15]

Number of fingertip units* (FTUs for adults and children)					
Age	**Face and neck**	**One arm and hand**	**One leg and foot**	**Trunk (front)**	**Trunk (back) including buttocks**
Adult	2.5	4	8	7	7
3-12 months child	1	1	1.5	1	1.5
1-2 years old child	1.5	1.5	2	2	3
3-5 years old child	1.5	2	3	3	3.5
6-10 years old child	2	2.5	4.5	3.5	5
*One adult fingertip unit (FTU) is the amount of ointment or cream expressed from a tube with a standard 5mm diameter nozzle, applied from the distal crease to the tip of the index finger.					

The quantity of topical corticosteroid needed for an adult using a single application to specified areas of the body for two weeks is shown in table 2.[1] The quantities relate to the practical aspect of applying the product and does not imply clinical appropriateness.

Table 2: Suitable quantities for an adult for a single application for two weeks of topical corticosteroid preparations[1]

Area of body	Quantity
Face and neck	15g-30g
Both hands	15g-30g
Scalp	15g-30g
Both arms	30g-60g
Both legs	100g
Trunk	100g
Groins and genitalia	15g-30g

Use of topical corticosteroids in eczema

- Advise patients to start treatment as soon as the signs of a flare appear, to use the preparation only on the areas where symptoms are apparent, and to continue for 48 hours after symptoms subside. For moderate or severe flares on the face, genitals, or axillae, use a moderately potent corticosteroid for a maximum of five days.[2,15]
- Consider tapering the potency or gradually withdrawing the topical corticosteroid after a flare, according to the needs of the individual.[14]
- In children under 11 years with atopic eczema, where more than one alternative topical corticosteroid is considered clinically appropriate within a potency class, prescribe the drug with the lowest acquisition cost, taking into account pack size and frequency of application.[2]
- On the face and neck, particularly in children, start with a mildly potent topical corticosteroid with the exception of short-term use (three to five days) of moderate potency for severe flares.[2,15]
- Do not use very potent preparations in children without specialist dermatological advice.[2,15]
- Do not use potent topical corticosteroids in children under 12 months without specialist dermatological supervision.[2,15]
- If flares are frequent (two or three per month) consider treating with topical corticosteroids for two consecutive days per week or twice weekly as maintenance treatment once the eczema has been controlled. Review this strategy every three to six months.[2,15]
- Review patients every three to six months (depending on steroid potency and site of application) to assess response and monitor for adverse effects.[14]

Use of topical corticosteroids in psoriasis

Adults

- Do not use potent corticosteroids continuously at any site for more than eight weeks or very potent corticosteroids for more than four weeks.[6]
- Aim for a break of four weeks between courses of treatment with potent or very potent corticosteroids. Consider non-steroid based products (coal tar, calcipotriol/vitamin D analogues) as needed to maintain control of psoriasis during this period.[6]
- Only mild to moderate topical steroids should be used on the face, genitals, flexural areas and in children. Potent or very potent corticosteroids are not recommended for use on the face, flexures or genitals.[6] However, specialists occasionally prescribe them for use on these areas in certain circumstances.[1] They should only be used for short term treatment (one to two weeks per month).[6]
- For very thick plaques or on certain areas like scalp, palms and soles, a stronger topical steroid is needed.[14]
- Offer a review at least annually to adults with psoriasis who are using intermittent or short-term courses of a potent or very potent corticosteroid (either as monotherapy or in combined preparations) to assess for the presence of steroid atrophy and other adverse effects.[6]

Children

- Do not use very potent corticosteroids in children and young people.[6]
- Offer a review at least annually to children and young people with psoriasis who are using corticosteroids of any potency (either as monotherapy or in combined preparations) to assess for the presence of steroid atrophy and other adverse effects.[6]

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Topical corticosteroids containing antimicrobials in the treatment of eczema

A range of topical antiseptics and antibiotics are available combined with emollients or topical corticosteroids, e.g. Fucibet® cream. Use of combined corticosteroid/antibiotic preparations (such as Fucibet® cream) should be avoided as this will increase the risk of antibiotic resistance.[15] The NICE guidance on secondary bacterial infection of eczema [NG190] advises that in people who are not systemically unwell, to not routinely offer either a topical or oral antibiotic for secondary bacterial infection of eczema. Take into account:

- Their preferences (and those of their parents and carers as appropriate) for topical or oral administration.
- The limited benefit of antibiotics in addition to topical corticosteroids compared with topical corticosteroids alone.
- The risk of antimicrobial resistance with repeated courses of antibiotics.
- The extent and severity of symptoms or signs.
- The risk of developing complications, which is higher in people with underlying conditions such as immunosuppression.[15,18]

If there are localised areas of infection, consider prescribing topical fusidic acid for five to seven days.[15,18] Patients should be advised that if their skin worsens during treatment, they should stop using the product and seek medical advice as:

- This may be a sign of sensitisation or an indication that the product is not effectively treating the infection.
- Oral antibiotics may be required.[15]

Patients should be referred urgently (within two weeks) if infected eczema has not responded to treatment. Refer urgently (same day) to an appropriate specialist for a child with eczema herpeticum (widespread herpes simplex virus).[2,15,18]

Offer treatment and advice to reduce the risk of further infection, including prescribing new supplies of topical products (emollients and corticosteroids) for use after the infection has cleared, and advise the person to discard the old products.[15]

NICE [NG190] also states to be aware that no evidence was found on the use of antibiotics in managing secondary bacterial infections of other common skin conditions such as psoriasis, chicken pox, shingles and scabies. Seek specialist advice, if needed. The committee also agreed that more research was needed on the optimum treatment of infected psoriasis.[18]

Topical corticosteroid products available and price comparisons

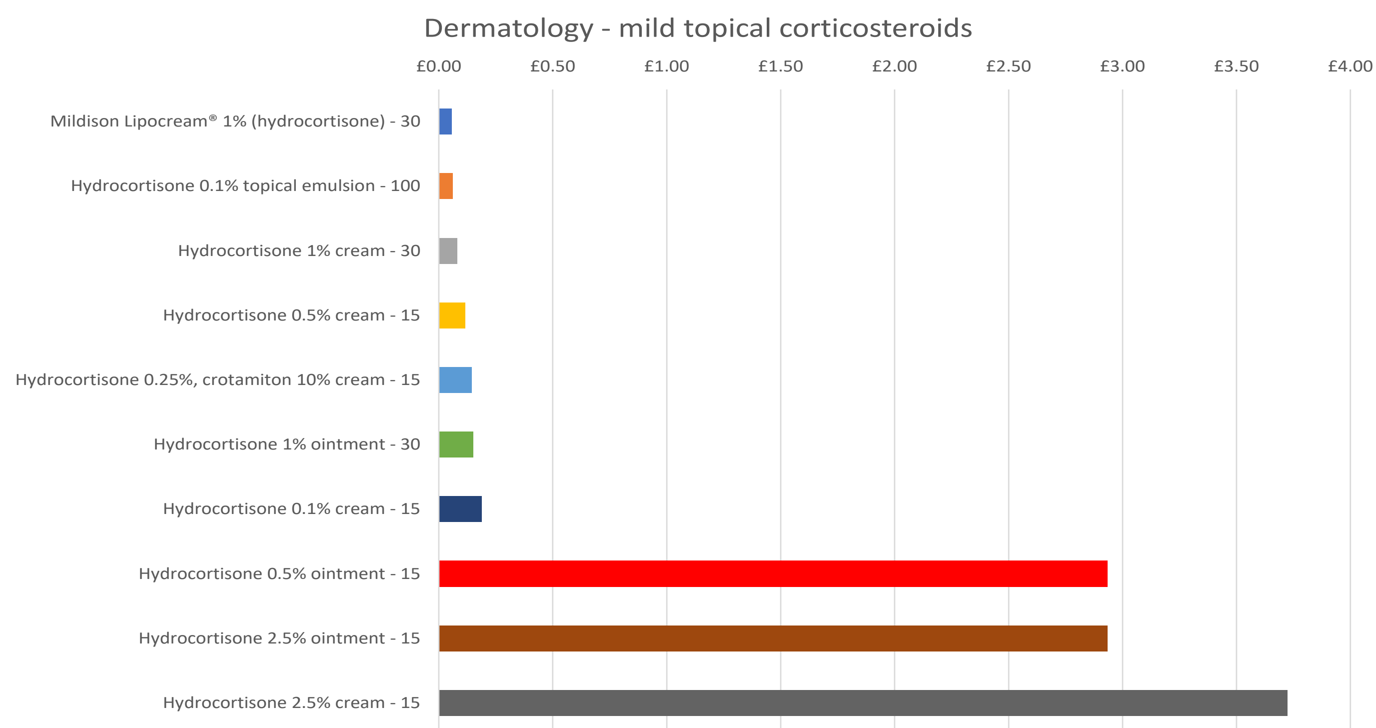
Cost comparison charts included in the visual data pack accompanying this resource show the cost per millilitre (ml) or gram (g) for the range of different potency topical corticosteroids, and those which include antimicrobials. Larger pack sizes may be available at a lower price per ml or g. Pack size selection should be based on the most appropriate quantity for the patient, to avoid giving inappropriately excessive (or inadequate) amounts.

The potency of topical corticosteroids relates to their formulation as well as their corticosteroid content and several products contain multiple active ingredients.[1] Generic preparations are available which are equivalent to branded products at a lower cost and their use is encouraged. However, where there is no generic available and prescribing generically may result in the wrong preparation being dispensed, then brand prescribing is encouraged. Consideration should be given locally as to whether brand prescribing is recommended for specific products or types of product, taking into account availability of the product.

Mild potency topical corticosteroids

Chart 1 illustrates the cost per gram for mild potency topical corticosteroids. Hydrocortisone 2.5% cream and ointment preparations are between 18 and 58 times more expensive per gram than alternative mild potency topical corticosteroids.

Chart 1. Mild potency topical corticosteroids cost comparison (cost per gram)

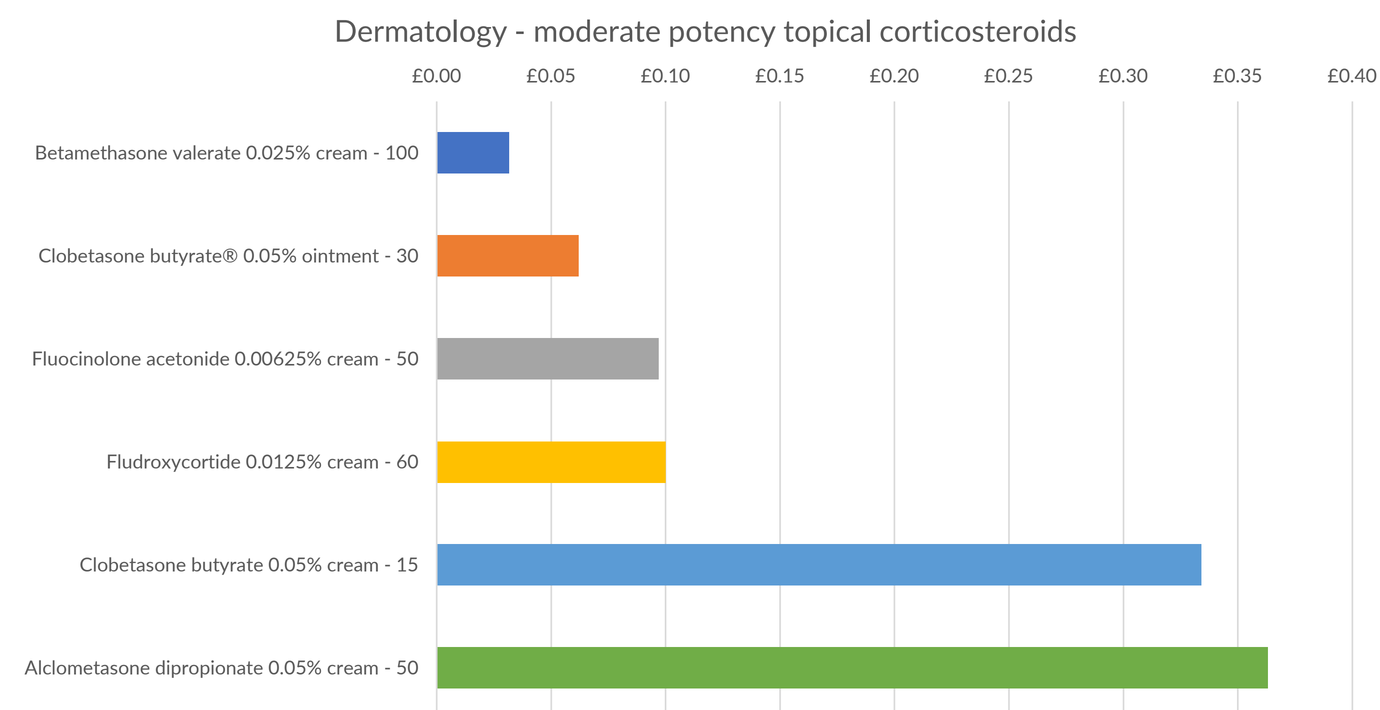


Moderate potency topical corticosteroids

Chart 2 illustrates the cost per gram for moderate potency topical corticosteroids.

Aclometasone 0.05% cream and clobetasone 0.05% cream, are 10 times more expensive than the least costly moderate potency topical corticosteroid, betamethasone 0.025% cream.

Chart 2. Moderate potency topical corticosteroids cost comparison (cost per gram)

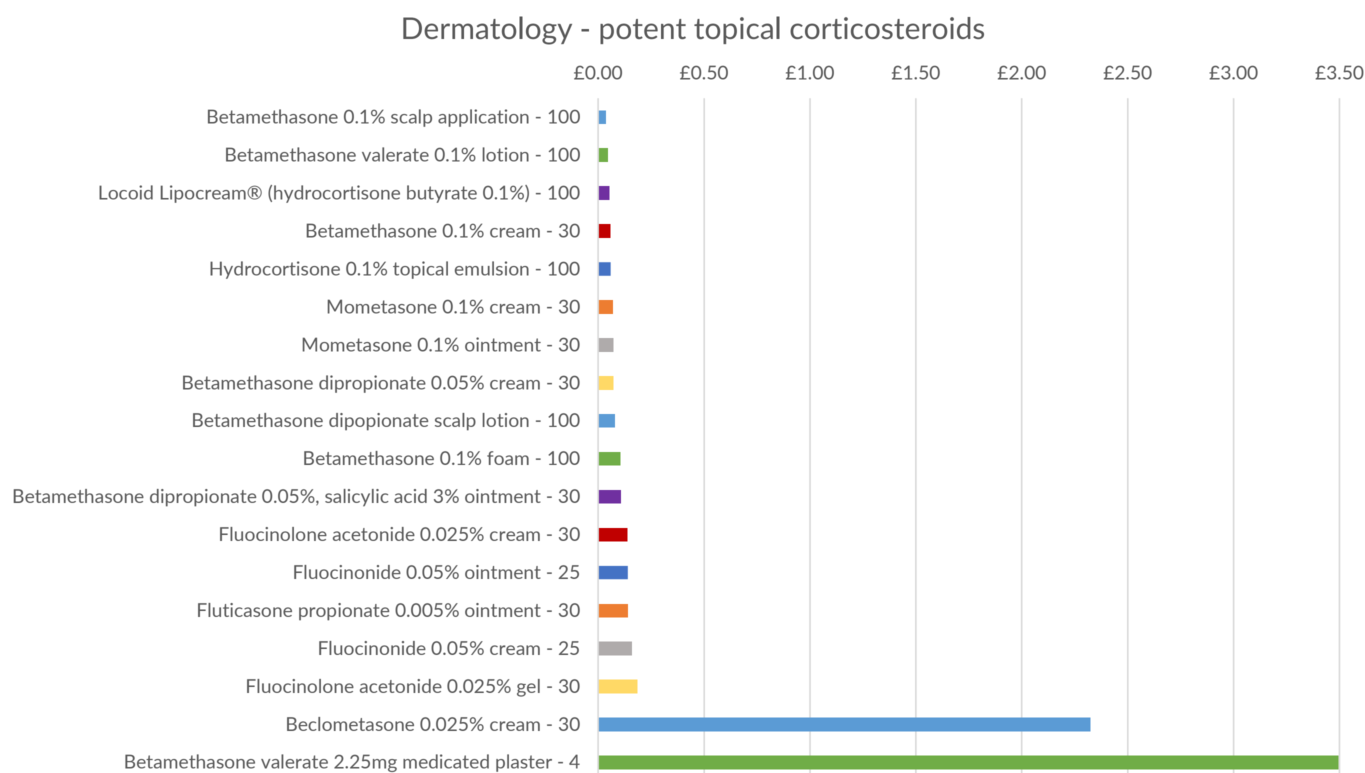


Potent topical corticosteroids

Chart 3 illustrates the cost per gram for potent topical corticosteroids.

Beclometasone 0.025% cream and betamethasone valerate 2.25mg medicated plasters are 12 to 87 times more costly than other potent topical corticosteroids.

Chart 3. Potent topical corticosteroids cost comparison (cost per gram)

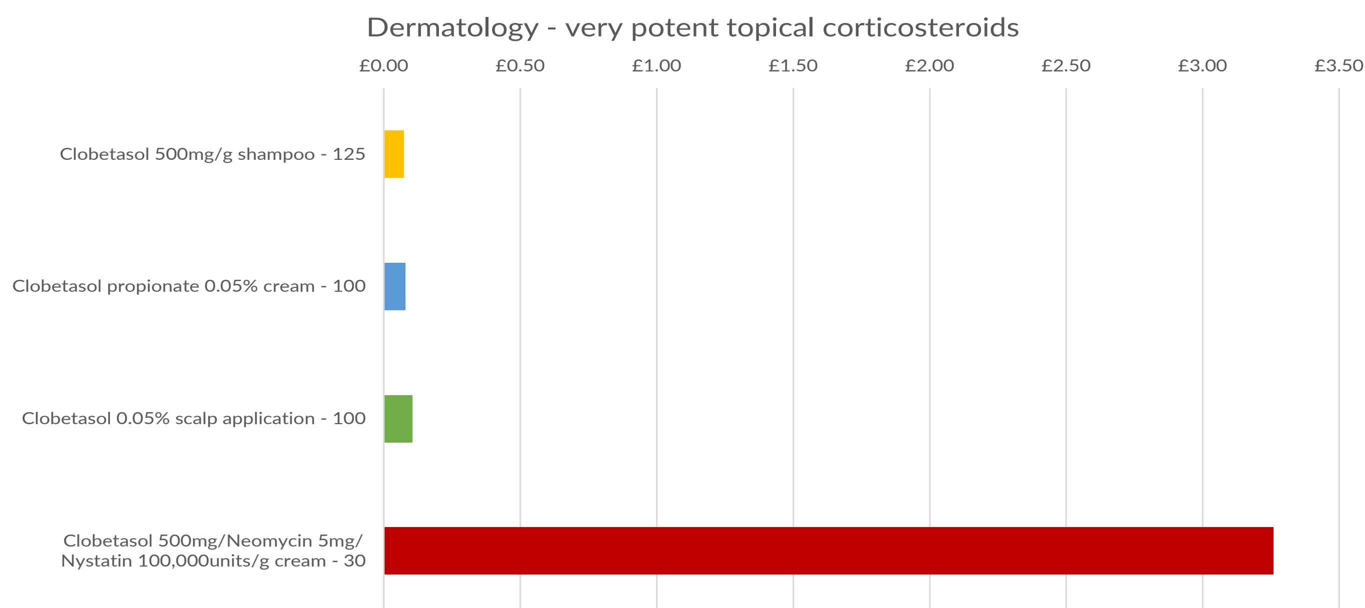


Very potent topical corticosteroids

Chart 4 illustrates the cost per gram for very potent topical corticosteroids.

The very potent topical corticosteroids available are clobetasol based preparations of a shampoo, cream, scalp application or cream combined with antimicrobials.[1] The clobetasol/neomycin/nystatin combination product is 40 times more expensive than the clobetasol single ingredient preparations.

Chart 4. Very potent topical corticosteroids cost comparison (cost per gram)



Combination products containing topical corticosteroids and antimicrobials

(also refer to the section above Topical corticosteroids containing antimicrobials in the treatment of eczema)

The advantages of including other substances (such as antibacterials or antifungals) with corticosteroids in topical preparations are uncertain. Such combinations may have a place where inflammatory skin conditions are associated with bacterial or fungal infection, such as infected eczema. In these cases the antimicrobial drug should be chosen according to the sensitivity of the infecting organism and used regularly for a short period (typically twice daily for five to seven days). Longer use increases the likelihood of resistance and of sensitisation.[1]

Canesten® hydrocortisone cream and Daktacort® hydrocortisone cream are available for purchase over the counter (OTC). The OTC pack sizes are smaller than the pack sizes available on prescription, and they are more expensive. Therefore, avoid prescribing the 15g pack size unless there is a clear need for a smaller quantity to be provided.[1,19]

Potential actions to improve the clinical appropriateness and cost-effective prescribing of topical corticosteroids containing antimicrobials include:

- Having clear local guidelines on when and how to use these products, including limiting use to a maximum of five to seven days.
- Only issuing these items as acute issues and reviewing any currently prescribed preparations on repeat prescriptions.
- Reviewing practice where the more costly products are prescribed, and using alternative, less costly products where this is clinically appropriate for the individual.

Topical treatments for psoriasis

Vitamin D analogues

- The vitamin D analogues available are calcipotriol, calcitriol and tacalcitol.[1]
- The NICE Clinical Guideline on the assessment and management of psoriasis [CG153] assumed a class effect for vitamin D analogues and did not recommend a preferred option.[6] Calcitriol (active metabolite of vitamin D) and tacalcitol may be less irritant than calcipotriol.[1,7]
- Vitamin D and vitamin D analogues are generally safe to use, however when used at high doses there is a potential risk of systemic side-effects (hypercalcaemia and hypercalciuria). For this reason a maximum dose application is specified in the summary of product characteristics for these preparations.[20-22]
- Dovonex® (calcipotriol) ointment is the least expensive of the vitamin D analogue preparations if used at the maximum daily application for four weeks.
- Calcipotriol ointment is also the only formulation of vitamin D analogue licensed in children over six years.[22]
- Calcipotriol scalp solution for the treatment of scalp psoriasis is expensive (see table 3) and should only be used in people who are intolerant of or cannot use topical corticosteroids at this site or who have mild to moderate scalp psoriasis.[1,6] When used, it should be applied daily for eight weeks.[1]

Calcipotriol/betamethasone combination therapy

- The NICE Clinical Guideline on the assessment and management of psoriasis [CG153] found that when treatments were compared with each other, very few trials showed a statistically significant difference between treatments. However, a network meta-analysis for treatments of trunk or limb psoriasis showed that once daily combined calcipotriol monohydrate and betamethasone

dipropionate was found to be more effective than once-daily vitamin D preparations, once-daily potent corticosteroid and once-daily retinoid therapy.[6]

- The guideline development group (GDG) noted that in studies that compared various treatment sequences (e.g. combined calcipotriol/betamethasone products with vitamin D alone or alternating vitamin D and combined product for the full trial period) if the combined product was present anywhere in the sequence, even just for the first four weeks, the efficacy was improved compared with vitamin D alone. The GDG stated that the data suggested that this increased efficacy could be maintained by subsequent use of vitamin D analogue alone.[6]
- In the cost-effective analysis, although combined calcipotriol monohydrate/betamethasone dipropionate was found to be the most effective treatment it was not cost effective. The cost effectiveness analysis carried out by NICE demonstrated that separate application of a vitamin D and potent corticosteroid represented the most cost-effective first-line option for trunk and limb psoriasis. The NICE GDG felt that the modest additional benefits the combination produced were insufficient to justify the extra cost; so it was recommended as a third or fourth line option.[6]
- Enstilar® cutaneous foam is another licensed formulation of calcipotriol/betamethasone for use on scalp, trunk and limbs and is associated with a higher cost than Dovobet® gel and generic calcipotriol/betamethasone gel.
- Effectiveness of the foam was evaluated in three clinical trials. It was rapidly effective, offered greater efficacy compared to an equivalent gel (rather than ointment) formulation, and was shown to increase patient treatment satisfaction.[23-25]
- Topical foam vehicles are alternatives to creams and ointments, addressing some of the patient challenges experienced with traditional formulations. They are easily spread over large areas of the skin and do not leave a greasy or oily film on the skin after application.[26]
- Enstilar® foam may be considered as an alternative to calcipotriol/betamethasone gel or Dovobet® gel to aid adherence to treatment.

Cost comparison graphs for betamethasone/calcipotriol preparations and vitamin D preparations in adults and children are available in the visual data pack accompanying this resource.

Tables 3 and 4 provide a comparison of the licensed indication and cost of betamethasone/calcipotriol preparations and vitamin D preparations in adults and children.

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Table 3: Comparison of licensed indications, dosage and cost of calcipotriol/betamethasone and vitamin D preparations in adults

Product	Licensed indication in adults[1]		Dosage[1]	Maximum recommended daily quantity The total body surface area treated should not exceed 30%[1]	Cost/g or ml (using most cost effective sized tube)[19,27]	Cost/four weeks at maximum recommended doses for licensed indications (using the most cost effective tube sizes)[19,27]
	Mild to moderate "non scalp" plaque psoriasis	Scalp psoriasis				
Combination corticosteroid and vitamin D preparations						
Calcipotriol 0.005% / betamethasone dipropionate 0.05% ointment (generic)[8]	Yes[28]	No[28]	Once daily	15g*	24p/g	£102.62
Calcipotriol 0.005% /betamethasone dipropionate 0.05% gel (generic)	Yes[29]	Yes[29]	Once daily	Stable plaque psoriasis: 15g* Scalp: 1-4g*	54p/g	Plaque - £228.34 Scalp - £60.89
Dovobet® (calcipotriol/ betamethasone 0.005%/0.05%) ointment	Yes	No	Once daily	15g*	62p/g	£258.51
Dovobet® (calcipotriol/ betamethasone 0.005%/0.05%) gel	Yes	Yes	Once daily	Stable plaque psoriasis: 15g* Scalp: 1-4g*	58p/g	Plaque - £241.88 Scalp - £64.50
Enstilar® (calcipotriol/ betamethasone 0.005%/0.05%) foam	Yes	No	Once daily	Maximum 15g* per day	66p/g	£277.76
Vitamin D preparations						
Dovonex® (calcipotriol 50microgram/g) ointment	Yes	No	Once or twice daily	100g/week*	19p/g	£77.07
Curatoderm® (tacalcitol 4microgram/g) ointment	Yes	No	Once daily	10g**	31p/g	£86.41
Calcipotriol 50micrograms/g ointment (generic)	Yes[29]	No[29]	Once or twice daily	100g/week*	25p/g	£99.73

Product	Licensed indication in adults[1]		Dosage[1]	Maximum recommended daily quantity The total body surface area treated should not exceed 30%[1]	Cost/g or ml (using most cost effective sized tube)[19,27]	Cost/four weeks at maximum recommended doses for licensed indications (using the most cost effective tube sizes)[19,27]
	Mild to moderate “non scalp” plaque psoriasis	Scalp psoriasis				
Curatoderm® (tacalcitol 4microgram/g) lotion	Yes	No	Once daily	10ml**	42p/ml	£118.81
Silkis® (calcitriol 3microgram/g) ointment	Yes	No	Twice daily	30g	18p/g	£151.70
Calcipotriol 50micrograms/ ml scalp solution (generic)	No	Yes	Twice daily	60ml/weekly*	123p/ml	£295.60

*If calcipotriol scalp solution and ointments are used together, the maximum dose of calcipotriol is 5mg each week, e.g. scalp solution 60ml plus cream or ointment 30 grams/cream or ointment 60 grams plus scalp solution 30ml.

** If tacalcitol lotion and ointment are used together, the maximum dose of tacalcitol is 280 micrograms in any one week, e.g. lotion 30ml with ointment 40g.[1]

Table 4: Comparison of licensed indications, dosage and cost of calcipotriol/betamethasone and vitamin D preparations in children

Product	BNF recommendations in children (age range stated)[16]		Dosage[16]	Maximum recommended daily dose quantity (unless stated)[16] The total body surface area treated should not exceed 30%[4]	Cost/g or ml[19,27]	Cost/four weeks at maximum recommended doses for licensed indications (using the most cost effective tube sizes)[19,27]
	Mild to moderate "non scalp" plaque psoriasis	Scalp psoriasis				
Combination corticosteroid and vitamin D preparations						
Calcipotriol 0.005%/ betamethasone dipropionate 0.05% ointment (generic) unlicensed	12-17 years (specialist use only)	No	Once daily	75g weekly^	24p/g	£73.30
Calcipotriol 0.005%/ betamethasone dipropionate 0.05% gel (generic) unlicensed	12-17 years (specialist use only)	12-17 years (specialist use only)	Once daily	Stable plaque psoriasis: 75g^ weekly Scalp: 1-4g^	54p/g	Plaque - £163.10 Scalp - £60.89
Dovobet® (calcipotriol/ betamethasone 0.005%/0.05%) gel unlicensed	12-17 years (specialist use only)	12-17 years (specialist use only)	Once daily	Stable plaque psoriasis: 75g^ weekly Scalp: 1-4g^	58p/g	Plaque - £172.77 Scalp - £64.50
Dovobet® (calcipotriol/ betamethasone 0.005%/0.05%) ointment unlicensed	12-17 years (specialist use only)	No	Once daily	75g weekly^	62p/g	£184.65
Vitamin D preparations						
Dovonex® (calcipotriol 50microgram/g) ointment unlicensed	6–17 years	No	Twice daily	6-11 years maximum 50g weekly; over 12 years max 75g weekly^	19p/g	£57.80 at 75g max weekly

Product	BNF recommendations in children (age range stated)[16]		Dosage[16]	Maximum recommended daily dose quantity (unless stated)[16] The total body surface area treated should not exceed 30%[4]	Cost/g or ml[19,27]	Cost/four weeks at maximum recommended doses for licensed indications (using the most cost effective tube sizes)[19,27]
	Mild to moderate "non scalp" plaque psoriasis	Scalp psoriasis				
Calcipotriol 50micrograms/g ointment (generic) unlicensed	6–17 years	No	Twice daily	6-11 years maximum 50g weekly; over 12 years max 75g weekly^	25p/g	£74.80
Curatoderm® (tacalcitol 4microgram/g) ointment unlicensed	12-17 years	No	Once daily	10g*	31p/g	£86.41
Curatoderm® (tacalcitol 4microgram/g) lotion unlicensed	12–17 years	No	Once daily	10ml*	42p/ml	£118.81
Silkis® (calcitriol 3 microgram/g) ointment unlicensed	12-17 years	No	Twice daily	30g	18p/g	£151.70
Calcipotriol 50micrograms/ ml scalp solution (generic)unlicensed	No	6-17 years (specialist use only)	Twice daily	6-11 years: max 30ml weekly^ 12-17 years: max 45ml weekly^	124p/ml	£221.70 at 45ml max weekly

Unlicensed – refer to summary of product characteristics available at www.medicines.org.uk

^In children, if calcipotriol scalp solutions (specialist prescribed) are also used, the maximum total calcipotriol is 2.5mg in any one week for a child 6–12 years (e.g. scalp solution 20ml with ointment 30g); a maximum of 3.75mg in any one week for a child 12–18 years (e.g. scalp solution 30ml with ointment 45g).[16]

Coal tar

Coal tar has anti-inflammatory, antipruritic, and anti-scaling properties and is often combined with other topical treatments for psoriasis. Several coal tar preparations are available including ointments, shampoos, and bath additives. Newer products are preferred to older products containing crude coal tar (Coal Tar BP), which is malodorous and usually messier to apply.[1] It may be used at home; patients should be provided with detailed information and education on its use. Tars are applied directly on affected skin once or twice daily for two to four weeks, beginning at lower concentrations and

increasing the strength of tar, if necessary, once the lower strengths have been tolerated in terms of irritation, staining of clothes and smell. They can be used intermittently or continuously if well-tolerated. Avoid use if the skin is very inflamed or if there are pustules, as tar can be an irritant. Tar preparations can be applied under occlusion, but it may increase the risk of irritation. Long-term use of tar is safe, with the main drawback being cosmetic acceptability and possible irritancy.[31] A cost comparison chart for the coal tar preparations cost per 100ml is available in the visual data pack accompanying this resource. A list of coal tar preparations, brand names and pack sizes are outlined in table 5.

Table 5: Coal tar preparations[1]

Preparation	Brand name	Quantity
Coal tar distilled 60mg per 1 gram	Psoriderm®	225ml
Coal tar distilled 25mg per 1ml	Psoriderm® scalp lotion	250ml
Coal tar solution 50mg per 1 gram	Exorex®	100ml
		250ml
Coal tar extract 20mg per 1 gram	Neutrogena T/Gel® Therapeutic shampoo	125ml
		250ml
Coal tar extract alcoholic 50mg per 1 gram	Alphosyl® 2 in 1 shampoo	250ml
Coal tar solution 40mg per 1ml	Polytar® Scalp shampoo	150ml

For seborrheic dermatitis and mild dandruff, coal tar shampoo, for example Polytar® Scalp Shampoo (General Sales List GSL) should be purchased over the counter (OTC).[32] Refer to the PrescQIPP Self care and over the counter items: A quick reference guide.

Dithranol

In patients with treatment-resistant psoriasis of the trunk or limbs, consider treatment with short-contact dithranol. Treatment should be given in a specialist setting or the patient should be provided with educational support for self-use.[1,6]

Dithranol cannot be used when plaques are very inflamed, excoriated or have pustules. Treatment should start with the lowest concentration applied on thick plaques once daily, using it for 30 to 60 minutes and then washing it off. Every few days, the concentration can be gradually increased depending on tolerance and any irritant effects, until the plaques are completely impalpable. The skin will have brown staining, which will fade once treatment has been discontinued.

Dithranol can be used as long contact treatment for more than one hour; this is usually done under nursing supervision under a tubular dressing. The lower concentrations may be left for increasing periods more safely once treatment is established and tolerance time known.

Dithranol can irritate healthy skin. It stains the skin, clothing and shower or bath surfaces. It is a safe and effective treatment, suitable for long-term use, continuous or intermittent.[31]

Table 6: Licensed dithranol preparation

Preparation	Brand name	Quantity	Cost[1]
Dithranol 1 mg per 1 gram	Dithrocream® 0.1% cream	50g	£3.77

Unlicensed products – dermatology specials

Licensed preparations are the preferred treatment option, but in some cases the licensed formulation available may not meet the needs of the individual. In these cases, an unlicensed preparation also known as a 'special' is used to meet the patient's needs. Dermatology specials contain ingredients such as tars, dithranol, salicylic acid, and corticosteroids in a range of concentrations and ointment or cream bases. There was concern over product quality, increasing costs and the expanding range of dermatology specials being prescribed in primary care. As a result, the BAD produced a list of dermatology specials they considered were reasonable for specific dermatology conditions (mainly eczema and psoriasis). This is known as the BAD list and its use in dermatology is encouraged to address concerns over the quality and costs of unlicensed dermatology specials. The BAD has produced a booklet 'Specials recommended by the British Association of Dermatologists for skin disease'.[31] Attachment 4 contains details of the preparations recommended in the BAD specials list.

A further development to control increasing costs on specials has been the introduction of the specials tariff in England and Wales where the Drug Tariff sets out the price for a minimum volume of selected specials. Some dermatology specials, such as beclometasone 0.0025% in white soft paraffin, are included in this tariff.[18] The Scottish Drug Tariff Part 7, drugs and preparations with tariff prices, contains a list of unbranded medicinal products and ingredients for which a price has been agreed for the current month. Some dermatology specials are included in this list.[33]

Costs and Savings

Topical corticosteroids

The annual spend on topical corticosteroid preparations (excluding those containing antimicrobials or for OTC products) in England, Wales and Scotland is £30.4 million (NHSBSA March-May 22 and Public Health Scotland Feb-Apr 22).

By reviewing topical corticosteroid prescribing (excluding those containing antimicrobials or OTC products) and ensuring that the least costly preparation within each topical corticosteroid potency group, that is suitable for the individual is used, could result in savings of £6.6million in England and Wales and £948,851 in Scotland (NHSBSA March-May 22 and Public Health Scotland Feb-Apr 22). **This is equivalent to £10,722 per 100,000 patients.**

Topical corticosteroids containing antimicrobials

Annually £25.8million in England, Wales and Scotland (NHSBSA March-May 22 and Public Health Scotland Feb-Apr 22) is spent on topical corticosteroids containing antimicrobials such as:

- Betamethasone valerate 0.1% with fusidic acid 2% cream, Fucibet® cream and Xemacort® 20mg/g, 1mg/g cream.
- Clobetasol with neomycin and nystatin cream and ointment.
- Betamethasone and clioquinol cream and ointment.
- Betamethasone and neomycin cream and ointment.

Reviewing treatment prescribed for more than two weeks and deprescribing in 50% of patients could save £11.3million in England and Wales and £1.6million in Scotland (NHSBSA March-May 22 and Public Health Scotland Feb-Apr 22). **This is equivalent to £18,227 per 100,000 patients.**

OTC products for self care

Savings may be achieved by advising purchase of dermatology preparations OTC for self care, if appropriate for the individual. Some OTC preparations cannot be sold OTC for use in certain age groups, particular indications, for specific areas of the body, e.g. for the face and for particular lengths of treatment. Refer to the PrescQIPP Self care and over the counter items: A quick reference guide for

restrictions on sale OTC. Alternatively, if an OTC purchase is not appropriate, review continued need or prescribe a more cost-effective preparation if available. Examples of OTC preparations which are prescribed include:

- Eurax® cream (30g and 100g)
- Eurax-HC® cream (15g)
- Eumovate® eczema and dermatitis cream 0.05% (15g)
- Daktacort® hydrocortisone cream 1%w/w/2%w/w (15g)
- Canesten®-hydrocortisone cream 1%w/w/1%w/w (15g)
- Hydrocortisone 1% cream or ointment (15g)
- Coal tar shampoo, e.g. Polytar® scalp shampoo 150ml

Total annual spend on these items in England, Wales and Scotland is £17.8million (NHSBSA March-May 22 and Public Health Scotland Feb-Apr 22). **A 30% reduction in prescribing could release savings of £4.5million in England and Wales and £786,865 in Scotland** (NHSBSA March-May 22 and Public Health Scotland Feb-Apr 22). **This is equivalent to £7,536 per 100,000 patients.**

Vitamin D preparations

Across England, Wales and Scotland £7.1million is spent annually on Enstilar® cutaneous foam (calcipotriol 50micrograms/g/betamethasone 0.5mg/g) (NHSBSA March-May 22 and Public Health Scotland Feb-Apr 22). It is more costly than the generic calcipotriol/betamethasone ointment or gel or branded Dovobet® ointment or gel. The recommended treatment period is four weeks.[1] Maintenance treatment is applied twice weekly on two non-consecutive days with a two to three day break without treatment.[11] **A treatment review of psoriasis on trunk and limbs and reduction in prescribing costs of Enstilar® cutaneous foam in 25% of individuals could result in potential annual savings of £6.4million in England and Wales and £773,910 in Scotland** (NHSBSA March-May 22 and Public Health Scotland Feb-Apr 22). **This is equivalent to £10,097 per 100,000 patients.**

The annual spend on calcipotriol scalp solution in England, Wales and Scotland is £4.6million (NHSBSA March-May 22 and Public Health Scotland Feb-Apr 22). It is important to ensure that it is only used for people who cannot use corticosteroids and have mild to moderate scalp psoriasis.[2] **Reviewing use and deprescribing 25% of individuals could save £1million in England and Wales and £130,636 in Scotland** (NHSBSA March-May 22 and Public Health Scotland Feb-Apr 22). **This is equivalent to £1,636 per 100,000 patients.**

Dermatology Specials

In England, Wales and Scotland £2.7million is spent annually on dermatology specials not included in the BAD list (NHSBSA March-May 22 and Public Health Scotland Feb-Apr 22). 98.6% of dermatology specials prescribed are not included in the BAD list in England and Wales (NHSBSA March-May 22 and Public Health Scotland Feb-Apr 22).

It would be useful to review all patients that are prescribed specials/unlicensed formulations to ascertain the efficacy of the special, the continued need or whether patients should be on these formulations long term. Where appropriate, consider referring patients to a specialist for a review and consider using a licensed product wherever available. If an unlicensed topical preparation is required, consider only prescribing those included in the BAD list.

If a review of prescribing led to a 25% reduction of dermatology specials not included in the BAD list, then this could produce savings of £663,783 in in England and Wales and £3,089 in Scotland (NHSBSA March-May 22 and Public Health Scotland Feb-Apr 22). **This is equivalent to £942 per 100,000 patients.**

Implementation support materials available include a briefing, data pack, psoriasis and eczema treatment algorithms, information on potencies of topical corticosteroid preparations, dermatology specials list, topical corticosteroid audit and an educational presentation.

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Additional PrescQIPP resources

Briefing	https://www.prescqipp.info/our-resources/bulletins/bulletin-307-cost-effective-prescribing-in-dermatology/
Implementation tools	
Data pack	https://data.prescqipp.info/views/B307_Costeffectiveprescribingindermatology/InfoBriefDermatologySpecials?%3Aembed=y&%3Aiid=1&%3AisGuestRedirectFromVizportal=y

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