Psoriasis is a chronic inflammatory multisystem disorder that affects 2–4 per cent of the population in western countries. Chronic plaque psoriasis is the most common form of psoriasis and may be generalised or localised. The knees, elbows, scalp and lower back are the most frequently affected areas, and the scalp is involved in up to 79 per cent of individuals. Scalp involvement is associated with significant morbidity including reduction in quality of life, social isolation and stigmatisation. Involvement of the scalp tends to increase in frequency with increasing duration of disease.

Treatment of scalp psoriasis poses a number of unique challenges. The presence of hair makes topical ointments and creams difficult to apply and negates the use of routine light treatment in most circumstances. Furthermore, the close proximity of sensitive facial skin raises issues of irritation and risk of steroid-related skin atrophy.

Topical therapy prescribed by the primary care physician can effectively treat mild-to-moderate scalp psoriasis (see Figure 1) and may reduce the need for specialist referral and systemic therapy. This article provides a succinct summary of the role of different topical therapies and provides a simple and evidence-based guide for their use in the primary care setting.

Clinical assessment
Adequate clinical evaluation of psoriasis is important, including assessment of disease severity and impact on quality of life. NICE guidance recommends use of the Physician’s Global Assessment, the Patient’s Global Assessment and the body surface area affected. Performing assessment in this way will allow stratification of the disease into mild, moderate or severe, enabling the appropriate level of treatment and the monitoring of disease response over subsequent consultations. Referral for dermatological specialist advice is advisable if there is diagnostic uncertainty, if the psoriasis is severe, or if more than 10 per cent of the body surface area is affected.

Topical treatments
Topical steroids
Potent or very potent topical steroids have been shown to be the most effective and best tolerated treatment for scalp psoriasis in head-to-head studies. They should be considered as first-line treatment and a four-week course is recommended. Steroid-induced side-effects are rare with this duration of use. Atrophy has been reported on the scalp, but with low rates of occurrence and current evidence is insufficient to draw conclusions.

Vehicle of application is also an important consideration as ointments are messy and make application problematic. Topical steroids are available as cream, gel, mousse, liquid (alcoholic and aqueous) and shampoo preparations. More cosmetically convenient vehicles such as mousses have been found to be superior in terms of efficacy and patient tolerability.

Steroid shampoo
Clobetasol propionate in a shampoo base (Etrivex) is available on prescription and is licensed for daily use for four weeks’ duration. Steroid shampoo has shown superior efficacy in head-to-
Coal tar

Coal tar has been used as a treatment for psoriasis for over 100 years and is still widely used in primary and secondary care. Despite this, a comprehensive review of the literature reveals a lack of evidence evaluating the use of coal tar for treatment of scalp psoriasis. The lack of evidence may reflect the difficulty in blinding treatment with coal tar. There is some evidence that coal tar 1% in an emollient base is superior to coal tar 5% in the treatment of chronic plaque psoriasis.17 Coal tar can be poorly tolerated by patients because of staining of clothes and odour. Other adverse events include: dermatitis, folliculitis and photosensitivity; however, there is no convincing evidence for carcinogenicity in humans.17

Keratolytic agents

Salicylic acid

Salicylic acid is a keratolytic agent that is used widely for the treatment of psoriasis. It is likely that the beneficial effect of salicylate treatment is related to a decrease in scale18 and therefore salicylates should be prescribed to those patients where excessive scale is problematic. Salicylates are of greatest benefit when given in combination with topical corticosteroid therapy.19 19 For example, Diprosalic (betamethasone dipropionate/salicylic acid). There is no robust evidence regarding the efficacy or tolerability of topical salicylate preparations but anecdotal evidence suggests they are well tolerated.

Combination products

There are a number of keratolytic products that combine salicylic acid with coal tar and sulphur in a coconut oil base, eg Cocos and Sebo. These compounds are widely used and based on the original compound of tar pomade. Expert opinion suggests that they are useful in hyperkeratotic scalp psoriasis (see Figure 2). They are thought to help reduce the scale associated with scalp psoriasis and perhaps also allow greater penetration of other treatments.

Their value as combined keratolitics and emollients can be enhanced by massage application in the evening and sleeping with treatment in place beneath a shower cap. They may be washed out in the morning with shampoo prior to the application of a more convenient daytime product (see Table 1). There are no studies evaluating the use of such agents in the literature.

Combination shampoo

A number of medicated shampoos are available over the counter. They have many possible uses. First, they may be used as a product for washing out the other topical greasy products used as part of scalp psoriasis management. Second, they may have value in the removal of scale and to increase the efficacy of topical therapies. Third, the constituents may have specific medical value; salicylic acid can remove scale.

Table 1. Tips for treating very thick scale

| **Use a coconut oil/salicylic acid/ emollient application and leave on overnight** |
| **A disposable shower cap may help keep the product in the hair rather than on the bed sheets** |
| **Shampoo* in the morning and then apply a topical steroid** |
| **Repeat every night for one week** |
| **Thereafter use treatment as required** |

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**PRESCRIBING IN PRACTICE**

Scalp psoriasis

Tips for treating very thick scale

- Use a coconut oil/salicylic acid/emollient application and leave on overnight
- A disposable shower cap may help keep the product in the hair rather than on the bed sheets
- Shampoo* in the morning and then apply a topical steroid
- Repeat every night for one week
- Thereafter use treatment as required

* see section on shampoos

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**KEY POINTS**

- Clinical assessment of scalp psoriasis should be based on severity and quality of life
- Delivery of preparations, eg foam/Shampoo/ointment, is an important consideration and may improve patient compliance and treatment efficacy
- Initial presentations to primary care should be treated with a potent or very potent topical steroid
- Second-line treatment should be combination therapy with steroid and a vitamin D analogue
- A vitamin D analogue should be considered if topical steroid is not tolerated
- Third-line treatment could be coal tar
- If excessive scale is present, keratolitics can be applied prior to topical steroid
- If topical therapy is unsuccessful then referral to a dermatologist should be considered
coconut oil is emollient and tar can be antipruritic as well as possibly reducing the keratinocyte proliferation associated with psoriatic pathology. These products are widely used and expert opinion is that they are valuable. However, there is a lack of studies evaluating the efficacy of such treatments.

**Other therapies**

Phototherapies, traditional systemic therapies and biological agents exist for the treatment of psoriasis, but are rarely used for scalp psoriasis in isolation. These treatments are limited to use in secondary care only.

### Conclusion

A treatment algorithm for the management of scalp psoriasis in primary care is shown in Figure 3. Based on the available evidence, potent or very potent topical corticosteroids are the most appropriate initial treatment for an individual presenting with scalp psoriasis in primary care. In patients with thick scale, it is appropriate to use a keratolytic agent alongside the corticosteroid.

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### References

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**Declaration of interests**

None to declare by the authors.

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