MANAGEMENT OF PSORIASIS AFFECTING HIGH-IMPACT SITES

Rachel Hilton

Psoriasis can be extremely challenging to live with, particularly when affecting areas of the body that are visible to others and/or sensitive and difficult to treat due to the practicalities of topical therapy. This article will focus on the management of psoriasis affecting hands and feet, scalp, face and flexures. The emphasis is on the management of mild to moderate psoriasis and therefore topical treatment[1]. It should be noted, however, that 'mild' and 'moderate' are misleading terms when describing most patients' perception of psoriasis at these areas of the body; NICE[1] uses the phrase 'high-impact sites' and this is much more relevant. NICE also uses the term 'difficult to treat' for these same areas[1]. Yet with good assessment by the clinician, utilising good knowledge of appropriate topical products, psoriasis in these areas is often quicker to clear than on the lower limbs or trunk.

Citation: Hilton R. Management of psoriasis affecting high-impact sites. *Dermatological Nursing* 2016, 15(4): 23-27

KEY WORDS

- High-impact sites
- Hands and feet
- Scalp
- Face
- Flexures

General principles

Good management begins by taking a good history, enquiring about the effect of psoriasis upon everyday life. Knowledge of the individual's lifestyle and occupation is essential, including their own self-management and coping strategies, successful or otherwise. For example, those in employment that requires them to face the public will be acutely conscious of psoriasis on their face or hands.

A good management plan will include products appropriate for each area of the body[1]. Potent and very potent topical corticosteroids are contraindicated on the face or in the flexures[1] (due to the resultant epidermal and dermal atrophy, which occurs more quickly in these areas). Creams are usually preferred to ointments for the face and flexures as less sticky and shiny, but lotions and gels are much preferred to creams for the scalp. The choice of formulation, likelihood of the product causing staining, the potential to cause irritation and the presence of an odour are all-important factors to consider. All the above products should be used less often once psoriatic plaques become impalpable. The skin will still appear erythematous at this stage, but be flat. An exception is psoriasis affecting the flexures as psoriasis in these areas is often impalpable; when less erythematous, treatments may then be applied intermittently as needed.

A good plan will be tailored to the individual, and the more varied the body areas affected, the more complex the management plan will be. A written copy of the plan, for the patient to keep, is invaluable. When a choice of appropriate products exists, patient preference is key. Choice of emollient is a prime example; this may be achieved by trying different emollients in clinic, or by supplying the patient with testers.

Good adherence is most likely to be achieved when a management plan has been decided upon jointly by patient and practitioner. A prescription prepayment certificate should be suggested for those not eligible for free prescriptions.

When treating children with psoriasis it is necessary to be familiar with BNF guidelines, as dosing and duration of treatment often vary with younger age groups. It should be noted that children and young people with any type of psoriasis should be referred to a specialist at presentation[1].

Emollients

Emollients improve the appearance of psoriasis (making scale slightly less conspicuous), soothe itchy areas, improve the penetration of active products through psoriatic scale and reduce the over-proliferation of keratinocytes[2,3]. Emollients are usually applied all over, to psoriatic and to clear skin. Active products (eg, topical corticosteroid, tar, calcineurin inhibitor or vitamin D analogue) are applied accurately to psoriatic plaques (avoiding the application of product to unaffected skin). Emollients are not usually used in the flexures or on the scalp as they are cosmetically unacceptable (an

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exception being the overnight application of warmed oils or softened ointments, eg arachis oil if the scalp is very dry or scaly).

The order of application of emollient and active treatments has poor evidence base. Generally it is felt that the role of the emollient in the treatment of psoriasis is to soften scale on the surface of the plaque and thus it is logical to use before an active treatment like a corticosteroid. The time to leave between the application of an emollient and the active treatment depends entirely on which treatments are being used and practical issues for the patient. More time may be required after the application of a heavy and greasy emollient than a lotion or cream emollient. Some topical therapies, such as tacrolimus, require a minimum of 2 hours between treatments. For further guidance see the BDNG's Best Practice in Emollient Therapy statement[4]. When psoriasis is very mild an emollient may be the only topical treatment required for certain periods.

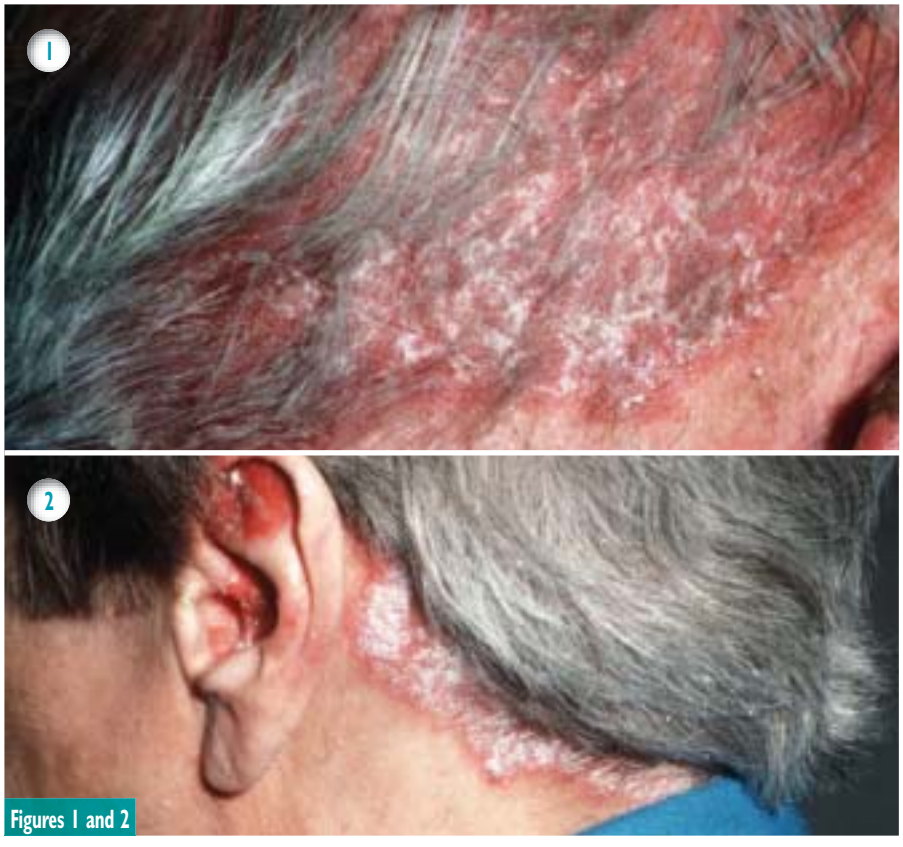
Scalp psoriasis

People with scalp psoriasis find the shedding of scale, often visible on shaking their head and falling onto clothing, socially embarrassing. They will shy away from wearing plain or dark-coloured tops, preferring patterns against which scale is less visible. Itching naturally leads to scratching, but this too leads to psychosocial distress, people fearing that others will think they have a scalp infestation.

The diagnosis of scalp psoriasis is made on the basis of a history of an often itchy scalp, causing lots of scale or 'dandruff', with well-demarcated plaques of silvery scale on an erythematous background *(Figures 1 and 2)*. It is common for those with scalp psoriasis to try to lift and remove the scale from plaques, thinking that they will improve their skin by doing so. This takes place in private and typically involves the use of fingernails or a comb, scratching and scraping the scalp. Patients will not usually volunteer this information, but gently asking "do you do anything to lift the scale from your scalp?" is often productive. The belief that doing this is helpful is common, yet the result is increased over-proliferation of keratinocytes due to Koebner's phenomenon[5]. It is not uncommon on examination to see excoriations; linear marks where scale has been lifted, resulting in erythematous, scabbed or bleeding skin. It is then necessary to ensure that management includes both education that a gentle touch is advantageous and treatment that will reduce inflammation and itch.

Examination should assess the whole scalp, parting the hair in small sections to establish the extent of the affected area, the thickness of scale, the degree of erythema and the presence of excoriations. There may be some hair loss, if hairs have been pulled out when scale has been removed by picking, but reassurance should be given that hair should regrow when the scalp is treated more gently and psoriasis treated.

Treatment options and useful tips are shown below.



Figures 1 and 2

Well-demarcated plaques of silvery scale and an itchy scalp indicate scalp psoriasis.

Scalp psoriasis treatment options

1. Coal tar shampoo if mild psoriasis and scale is present[6]
2. A potent corticosteroid applied once daily for up 4 weeks[1]
3. If there has not been sufficient improvement after 4 weeks, change to a different formulation – mousse or shampoo[1] (Bettamousse® or Etrivex®) or treatments to reduce scale[1] (Sebco® or Cocois®)
4. If no response after a further 4 weeks, use a combination product calcipotriol and betamethasone (Dovobet Gel®) once daily for 4 weeks and if no clearance for up to 8 weeks, or a Vitamin D analogue applied once daily for mild/moderate psoriasis[1]

Review after a further 4 weeks[1]

Tip: Calcipotriol and betamethasone gel Apply PM, massage into dry scalp. Wash off AM, but massage shampoo into dry hair first. This removes oily deposits

Tip: Use a shampoo by massaging into the hair and leaving for 5 minutes before washing out

Tip: Topical corticosteroids A mousse or aqueous-based formulation is less irritant than an alcohol-based formulation. Should be applied to a dry scalp, as wet hair will dilute the product. Avoid hair washing for 2 hours after application

Tip: Descaling with salicylic acid combined with coal tar Use to remove thick scale. Massage into a dry scalp for a minimum of 30 minutes and then remove with shampoo. Can be left in overnight, wearing a shower cap to protect bedding, and washed out AM — two washes may be required

If scalp psoriasis is recalcitrant or the person struggles with the application of treatment, a period of treatment in a specialist unit may be beneficial. This allows the use of multiple treatments in sequence to treat the psoriasis intensively and also helps with the gentle manual removal of adherent scale.

Care is needed when using potent and very potent topical steroid products around the face. Any product that drips or runs onto the face should be washed off, and the hands also washed afterwards. It is recommended to review patients with scalp psoriasis every 4 weeks and adjust treatment plans as necessary[1]. Once improving, the patient may use topical products intermittently 'as needed'. This helps prevent treatment regimes from being unnecessarily disruptive to the patient's lifestyle. Remember, if people dislike treatments and don't understand how to use them and get the best out of them, this will mean a dissatisfied patient (and wasted prescription).

Ear psoriasis

Psoriasis on the scalp often extends beyond the hairline onto the face, neck and ears.

The ears may be treated in the same way as the face, but the ear canal easily becomes occluded by a combination of psoriatic scale and topical products. Advise that creams are applied with the tip of the little finger, as there is little chance of this being inserted too far. Advise patients against the insertion of cotton wool buds (or worse) in an attempt to clear the ear canal. Itching of the ear canal may be eased with betamethasone 0.1% ear drops, 3 drops applied every 3-4 hours until itching has been relieved. Referral to an ENT clinic or self-referral to a private audiologist for micro-suction clearance may be necessary.

Facial psoriasis

We are all judged by our appearance, a fact of which those with facial psoriasis are acutely aware. When treating facial psoriasis, avoid topical products that are cosmetically unacceptable (eg, thick ointments in the daytime, tar products that stain the skin) or too irritant (tar products, calcipotriol). Potent or very potent corticosteroids are contraindicated due to the risk of epidermal and dermal atrophy[1], and use close to the eyes is known to cause raised intraocular pressure, leading to glaucoma. Recommended treatment options and tips are shown below.

Facial psoriasis treatment options

1. A mild or moderate corticosteroid cream should be applied once or twice daily[1] for the maximum of 2 weeks continuously (note maximum 1-2 weeks per month only for short-term use[1])
2. If no response to topical cortisosteroids after 4 weeks, change to a calcineurin inhibitor (Elidel® cream, or Protopic® 0.1% ointment) used twice daily for up to 4 weeks[1] *or*
3. Vitamin D analogue (Curatoderm® lotion/ointment and Silkis® ointment applied once daily[7])

Review after a further 4 weeks[1]

Tip: Calcitriol or tacalcitol ointments are usually well tolerated but calcipotriol may be too irritant

Tip: Use an emollient lotion or light cream as soap substitute and leave-on moisturiser.

Tip: Topical corticosteroids/vitamin D analogues
A further therapeutic option is vitamin D analogue once daily PM, with mild/moderate corticosteroid AM

Tip: Topical calcineurin inhibitors should be applied to the affected area overnight (as such products increase sensitivity to UV exposure).

Sebopsoriasis is a common variant of facial psoriasis, in which there are features of both psoriasis and seborrhoeic dermatitis, ie a psoriasiform rash in a seborrhoeic distribution. Erythema and scale is predominant in and around the eyebrows and nasolabial folds. It is helpful to reduce the level of commensal yeasts with daily use of ketoconazole shampoo and when washing the scalp to gently wash affected areas of the face with the foam obtained. The facial rash should then be treated with a mild or moderate corticosteroid cream combined with clotrimazole, miconazole or nystatin, applied twice daily when needed.

Hand and feet psoriasis (palmar-plantar psoriasis)

Psoriasis of the hands and feet is often very dry and hyperkeratotic, resulting in painful fissures over joints, the palms *(Figure 3)* and the heels *(Figure 4)*.

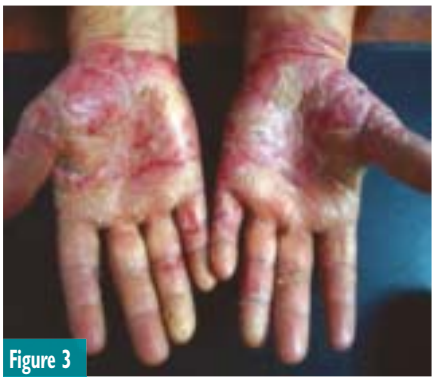


Figure 3

Psoriasis of the hands.

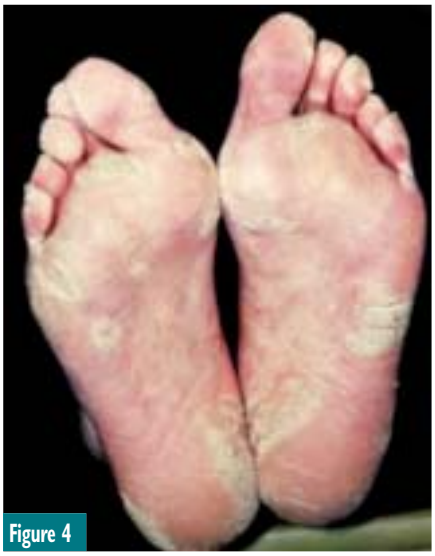


Figure 4

Psoriasis of the feet.

Figure 5

Psoriasis of the fingernails.

Manual tasks, including writing or typing, are often difficult and/or painful. Hands are another highly visible area of the body[7,8]. Those with psoriasis on the hands may fear that others will view them as infectious; situations that involve handing over money or shaking hands are often avoided wherever possible. They themselves, and employers, may wrongly feel they are unable to safely handle food.

Psoriasis of the fingernails *(Figure 5)* further increases the psychosocial

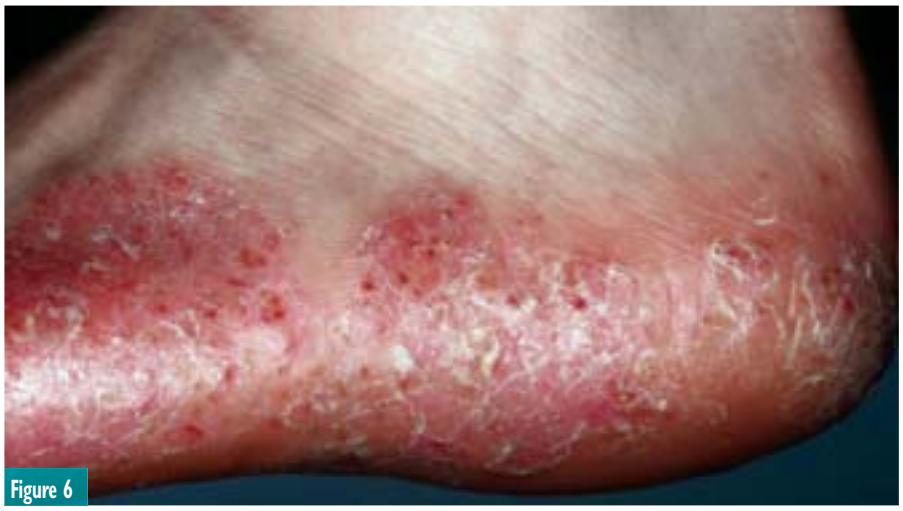


Figure 6

Palmoplantar pustulosis often co-exists with psoriasis.

impact and has practical consequences. As affected nails become dystrophic, and skin debris collects in areas of onycholysis, some will attempt to 'clean' under the nails by using the pointed end of a metal nail file, or other implement. Scraping of the nail bed may result in increased psoriatic hyperproliferation due to Koebner's phenomenon[5].

When feet are affected, particularly the soles, walking is painful. Exercise, often disliked by many due to social embarrassment, becomes even more difficult if the soles are fissured. This functional impairment may interfere with the ability to work or carry out chores at home.

Choice of footwear in warmer weather is influenced, in order to keep affected areas concealed. Psoriatic toenail dystrophy may impair mobility; a good podiatrist can be very helpful in this respect.

It is worth noting at this point that palmoplantar pustulosis *(Figure 6)* is considered to be a distinct condition, although one which often co-exists with psoriasis[9]; 10-20% of those with palmoplantar pustulosis also have psoriasis affecting other body areas. Topical treatments for psoriasis, as below, often help palmoplantar pustulosis, as does phototherapy.

Management of psoriasis on the hands and feet begins with good skin care. The box below summarises treatment options and tips.

Treatment options for palmar-plantar psoriasis (hands and feet)

1. A potent or very potent corticosteroid cream should be applied twice a day — Diprosalic® ointment is used for scale[11]
2. Vitamin D combinations or analogue can be applied once daily in the evening, in addition to a potent/very potent corticosteroid cream applied in the morning[11]

Review after 4 weeks[1]

Tip: Very dry skin on hands and feet especially if skin is hyperkeratotic can benefit from warm emollient soaks and/or 25% urea-based emollients (Flexitol® or Dermatonics®)

Tip: Use emollients as soap substitute and apply leave-on moisturiser; every time hands and feet are washed, massage into all areas including nail folds. Use a lighter emollient in the day and a greasy one at night with gloves or cotton socks; or stockinette (Clinifast™, Comfifast™, Tubifast™)

Tip: Fissures can be very painful. Extra Thin DuoDERM® can be used, cut into thin strips and wrapped around fingers and toes. Be aware that if topical corticosteroids are used under occlusion, this will increase steroid potency

Tip: Hyperkeratosis If failing to improve with emollients or urea-based products, coal tar combined with salicylic acid (Sebco® or Cocois®) can be used overnight, but will stain

Tip: **Weepy skin** If hands or feet are weepy or oozing, potassium permanganate soak (prescribed as Permitabs®, which are dissolved in water to the strength of the colour of rosé wine) can be used once or twice a week. Soak the hands and/or feet in this solution for approximately 15 minutes (preferably in an old bucket or washing-up bowl) and then rinse in water with emollients. Be aware that weepy and oozing skin can also indicate infection

If there has still not been satisfactory improvement after a further 8 weeks then referral to a specialist should be considered for topical PUVA therapy or systemic therapy (see below).

Nail-bed psoriasis does not respond to topical treatment, unless there is significant onycholysis. In such cases, potent topical corticosteroid lotions (such as those used for scalp psoriasis) and calcipotriol scalp lotion may be dripped behind the nails, one in the morning and one in the evening. Improvement takes at least several months, being limited by the normal rate of nail growth, and so a high degree of patience and perseverance is necessary. Haelan tape® can prevent onycholytic nails from catching and lifting further from the nail bed. See criteria for systemic therapy given at the end of this article: severe nail disease is a relative indication.

Flexural psoriasis

Areas affected can include the axillae, sub-mammary area and other skin folds, genitalia; pubic, peri-anal and ante-natal cleft.

Genital psoriasis is at best uncomfortable, often painful and/or itchy. Such a simple act as sitting for the time needed to eat a meal becomes difficult. The effect on intimate relationships is profound. Patients will often not voluntarily disclose the fact that the genital area is affected, so direct but sensitive enquiry is helpful. The diagnosis of flexural psoriasis is less obvious than on other areas of the body, as the bright, silver scale seen on plaque psoriasis elsewhere is absent, due to the high moisture content of the skin in the flexures. There may be clues from the presence or past history of psoriasis on other areas of the body. There may be a family history of psoriasis — enquiry regarding a past history of skin problems and family history, especially of eczema or psoriasis, should be a routine part of any dermatological history.

On examination there are typically bilateral, well demarcated areas of vivid

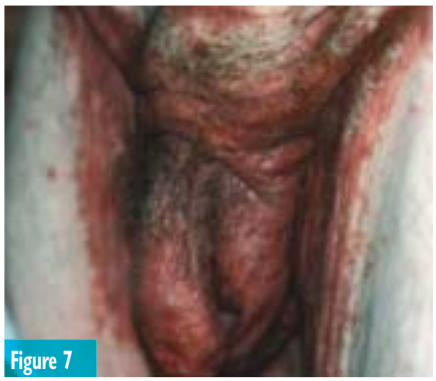


Figure 7

Genital psoriasis.

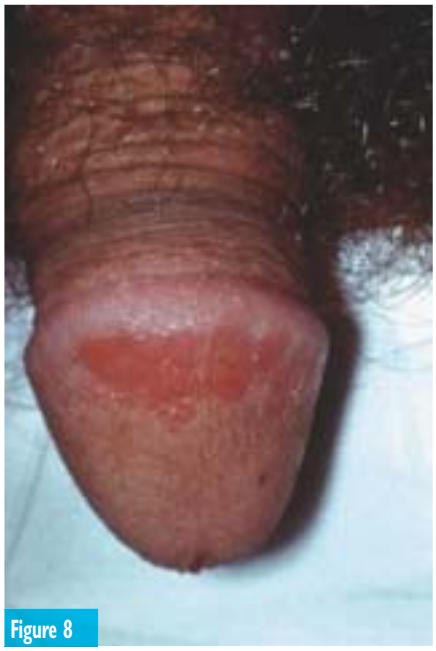


Figure 8

A small plaque is easily overlooked.

Genital psoriasis treatment options

1. A mild or moderate corticosteroid cream should be applied once or twice daily[1] for the maximum of 2 weeks continuously (note maximum 1-2 weeks per month only for short-term use[1])
2. If no response to topical cortisosteroids after 4 weeks, change to a calcineurin inhibitor (Elidel® cream, or Protopic® 0.1% ointment) twice daily for up to 4 weeks[1] *or*
3. If candida intertrigo is detected (satellite lesions around the plaques) consider a combined corticosteroid/antifungal cream (Canestan HC® or Trimovate®)[11]

   Review after a further 4 weeks[1]

Tip: Calcitriol or tacalcitol ointments are usually well tolerated but calcipotriol may be irritant

Tip: Use an emollient lotion or light cream as soap substitute and if necessary a leave-on moisturiser.

Tip: It is important to rule out infection if response is poor

erythema *(Figures 7 and 8)*. As the areas are often warm and moist, there is a risk of secondary infection due to bacteria or candida or fungi.

Treatment is similar to that for psoriasis on the face[1]. Treatment options are summarised below left with helpful tips.

Systemic therapy

When topical treatments prove inadequate it is necessary to consider systemic therapy. The NICE Guidelines are clear:

Criteria for systemic non-biological therapy[1].

Offer systemic non-biological therapy to people with any type of psoriasis if:

- it cannot be controlled with topical therapy *and*
- it has a significant impact on physical, psychological or social wellbeing *and*
- one or more of the following apply:
  - psoriasis is extensive (for example, more than 10% of body surface area affected or a PASI[10] score of more than 10) *or*
  - psoriasis is localised and associated with significant functional impairment and/or high level of distress (for example, severe nail disease or involvement at high-impact sites) *or*
  - phototherapy has been ineffective, cannot be used or has resulted in rapid relapse (rapid relapse is defined as greater than 50% of baseline disease severity within 3 months).

Summary

It is important to recognise the disproportionately high impact of psoriasis affecting visible or sensitive sites and the factors that influence the choice of product. Engage your patient in devising a management plan and they will have a higher chance of regaining control of their skin and their life.

Having initiated topical psoriasis treatment, it is essential to review your patient regularly and arrange prompt onward referral if adequate control of the psoriasis and symptom control has not been achieved. An unsuccessful topical management plan, if not reviewed and revised in a timely fashion, can result in loss of confidence in the practitioner and health services and further psychosocial distress. However, a successful topical management plan can result in the person with psoriasis feeling that they have regained control over their skin and reduced the impact of psoriasis on their life, without the burden of systemic medication. DN

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