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OVER-THE-COUNTER TREATMENT OF COMMON SKIN COMPLAINTS

By Christine Clark, MSc, FRPharmS

In this month's special feature the author discusses over-the-counter treatment of three skin conditions commonly presented at community pharmacies — eczema, psoriasis and acne

Dermatological conditions are estimated to affect 20–33 per cent of the general population at any time, and 10 per cent of these will suffer serious impairment of their daily activities as a result of their skin complaint. Ten per cent of general practitioner consultations are skin-related but the corresponding figure for community pharmacist consultations is not known. Anecdotal evidence suggests that a large number of minor dermatological complaints are routinely managed by community pharmacists.

When considering skin complaints it is important to distinguish between diseases of the skin itself and systemic diseases that have cutaneous manifestations, eg, chickenpox and meningitis. A generalised rash is more likely to be a result of systemic disease or infection. If the patient has symptoms of systemic illness such as joint pains, fever or malaise, has a history of recent contact with infectious disease or has recently returned from abroad, the possibility of systemic illness should be considered. Such cases should be referred to a doctor. It is beyond the scope of this article to provide a comprehensive review of rashes.

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Three common skin conditions — eczema, psoriasis and acne — account for the majority of skin complaints. All three are chronic conditions that can be uncomfortable and distressing for sufferers. In each case, correct use of topical treatment plays a significant role in successful management of the condition and, therefore, on the overall wellbeing of the patient. Given that the pharmacy is the first port of call for many patients with skin complaints, over-the-counter treatments are particularly important.

ECZEMA

Atopic, irritant and allergic eczema are the most common types of eczema (Panel 1). Irrespective of the cause of eczema, the result is reddened, inflamed, sore, dry and extremely itchy skin. There can also be blisters that burst and weep, and, in chronic atopic eczema, the skin may be lichenified (thickened) as a result of repeated rubbing and scratching. Seborrhoeic eczema is a condition that affects the scalp and may spread to affect other areas of the face and neck (typically eyebrows, eyelids, temples and the folds at the side of the nose, neck and behind the ears). It starts as mild dandruff, but in severe cases the scalp is very scaly and the skin beneath is red and itchy. Eczema affects up to 20 per cent of children and up to 10 per cent of adults and it tends to run an unpredictable course.

Normal, healthy skin prevents water loss and protects the underlying tissues from toxins and irritants through the interplay of a number of elements collectively known as the "epidermal barrier". When the epidermal barrier is impaired, water is lost from

Panel 1: Types of eczema

- ***Atopic eczema*** — an inherited condition, usually linked with asthma, allergic rhinitis and hayfever
- ***Irritant eczema*** — (irritant contact dermatitis) caused by anything that strips the natural grease from the skin, eg, soaps, detergents, disinfectants, soil, acids, alkalis, chemicals at work and in the home
- ***Allergic eczema*** — (allergic contact dermatitis) caused by an immune reaction to a substance in contact with the skin, only occurs on second and subsequent exposures (common allergens include nickel, chromium, some plants, cosmetics, hair dyes)
- ***Seborrhoeic eczema*** — often associated with the yeast *Pityrosporum ovale*

the skin and irritants penetrate. It is now believed that defective epidermal barrier function, as a result of genetic changes, plays a central role in several conditions, including atopic eczema, contact dermatitis and psoriasis.

Episodes of eczema are sometimes described as "skin flare-ups". They may be triggered by exposure to an irritant or allergen or there may be no obvious precipitating factor. The skin of patients with atopic eczema is often colonised by *Staphylococcus aureus*, which is known to release a "superantigenic" toxin that penetrates damaged skin and precipitates a powerful inflammatory response. In a flare-up, inflammatory mediators are released within the skin, causing localised swelling, itching and the characteristic symptoms of eczema. For many patients the intense itching is the worst symptom. Scratching relieves the itch, but releases more inflammatory mediators in the skin, which make the itching and inflammation worse. Excoriations caused by scratching allow further penetration of toxins and irritants and lead to further drying of the skin. The skin becomes more inflamed and itchy and the cycle continues. Many of the treatment measures are designed to break into the cycle.

There is no cure for atopic eczema but most patients can be treated successfully with proper skin care and lifestyle measures. Treatment of irritant and allergic eczema involves avoiding the irritants or allergens as far as possible. There are three main goals in treating the condition:

- Healing the skin and keeping it healthy
- Preventing flare-ups
- Treating symptoms as soon as they occur

Emollients and topical corticosteroids form the mainstay of treatment, although other products such as tar-containing products, systemic antihistamines and evening primrose oil (gamolenic acid) play a lesser role. Medicated shampoos have a role in the treatment of seborrhoeic eczema. In rare cases, phototherapy, systemic cyclosporin or Chinese herbal remedies may be used. Topical immunomodulatory agents, such as the recently launched tacrolimus (Protopic) may play a bigger role in the future.

Panel 2: Emollient use — key messages

- Emollient products include creams, ointments, lotions, bath oils and soap substitutes (In general, greasier, oil-based products are more efficacious but tend to be less acceptable to patients.)
- To get the best effect, a patient may need a selection of emollient products, for example, a heavy emollient for dry skin on the limbs and a lighter product for the face, combined with ointments for night-time use and an emollient bath product (eg, emulsifying ointment, emollient bath oil — Balneum, Oilatum)
- Patients often need to try several emollient products to find those that best suit their needs and preferences
- Emollients that contain humectants such as urea (eg, Aquadrate, Eucerin) or glycerine (eg, Neutrogena Dermatological Cream) may be helpful in rehydrating very dry skin
- Emollients containing small amounts of coal tar (eg, Alphosyl) are sometimes helpful in psoriasis
- Emollients should be applied liberally and frequently — after bathing and several times a day (Offer to provide a small container to carry some emollient around for use during the daytime.)
- Emollient use should be continued even when the skin condition has improved
- Continue use of emollients during treatment with a topical corticosteroid (regular, correct use of emollients reduces the dose of steroid required) and apply at a different time of day from the steroid to avoid diluting it

Emollients Emollients or moisturisers are one of the most important treatments for atopic eczema. It is important to avoid giving the impression that they are ineffective because they contain no "active" ingredients. The effects of emollients rely largely on their physical properties and poor responses are more likely to be the result of ineffective use than intrinsic lack of efficacy. Used correctly, emollients restore the skin's softness, smoothness and flexibility by replacing lost moisture and helping the skin to retain moisture.

In atopic dermatitis, emollients restore the "epidermal barrier" and may also have local anti-inflammatory actions. In addition, they have steroid-sparing effects (that is, allow a lower dose of corticosteroid to be used without any loss of effect) when used correctly (Panel 2).

Emollient soap substitute should be used whenever washing hands. Conventional soaps and detergents (even "moisturising" soaps) have a drying effect and may precipitate or exacerbate eczema. Emollient soap substitute, such as aqueous cream, should be applied to dry skin and be rinsed off with water. Aqueous cream can also be used as a substitute for shaving foam.

Topical corticosteroids Topical corticosteroids are used intermittently to reduce skin inflammation ("skin flare-up") in eczema. It is important to start treatment at the first sign of a flare-up because established lesions will be more difficult to treat.

The moderate-potency corticosteroid clobetasone butyrate 0.05 per cent (Eumovate eczema and dermatitis cream) is an effective over-the-counter treatment for a flare-up of eczema. Studies have shown that hydrocortisone 1 per cent is not strong enough in this situation. It is important to explain the concept of potency to patients because sometimes they assume that the effectiveness of a corticosteroid is related to its concentration, and erroneously believe hydrocortisone 1 per cent to be more effective than clobetasone butyrate 0.05 per cent.

Steroid creams should be applied thinly. Ideally there should be just enough to cause a faint sheen on the skin surface. The fingertip unit (the amount that can be squeezed out from the first crease to the tip of the index finger) may be helpful — half a fingertip unit will cover an area of skin the same size as the flat of the hand (the area covered if the hand is placed on a piece of paper) (Panel 3).

Panel 3: Topical corticosteroids for eczema — key messages

- Start treatment at the first sign of a flare-up
- Select a steroid of suitable potency for the area or lesions to be treated
- Apply the product sparingly
- Use for the shortest time needed for a clinically acceptable effect — up to one week should be sufficient for acute eczema; longer periods of steroid treatment for chronic eczema require medical supervision
- Apply emollients at a different time of day to corticosteroids to avoid diluting the steroid.

Notes Over-use of potent steroids can lead to skin-thinning and steroid-induced rosacea (on the face). Over-the-counter steroids should not be sold for treatment of psoriasis (because of possible disease rebound when treatment is stopped).

Medicated shampoos Mild seborrhoeic eczema can usually be managed with an anti-dandruff shampoo, such as those containing zinc pyrithione, selenium sulphide or an antiseptic. If the scalp is very scaly a product containing tar or salicylic acid may be helpful. Ketoconazole (Nizoral) shampoo may be required if the milder treatments are ineffective.

PSORIASIS

Chronic plaque psoriasis is the most common form of this condition. Well-defined,

red, thickened areas (plaques) covered with large, adherent, silvery scales occur commonly on the shins, knees elbows and trunk. Psoriasis can also affect the flexures and these areas are typically reddened and sore but not scaly. In 80 per cent of sufferers, the scalp is also affected. Skin scales are often shed profusely and dry areas may crack and bleed.

The cause of psoriasis is not fully understood but current theories favour a mechanism that involves the immune system with activated T-cells playing a central role. Once the train of events has started, a series of changes takes place in the skin. Keratinocytes proliferate in the epidermis but do not mature properly so that epidermal turnover time is reduced to about 10 days (compared with the normal 60 days). In addition, both the dermis and the epidermis are infiltrated with inflammatory cells and new blood vessels develop in the dermis. The end result of these changes is the characteristic thickened, inflamed, scaly skin that may be as much as 16 times as thick as normal skin.

Treatment of psoriasis is directed at controlling the symptoms. The majority of patients with mild to moderate psoriasis are treated with topical agents, including emollients, coal tar, steroids, dithranol, vitamin D_3 analogues and retinoids. Emollients play an important part in the management of psoriasis by reducing skin irritation and troublesome skin scaling (see Panel 2). Scalp treatments are also important to improve cosmetic appearance and comfort. In each case, correct use of an appropriate product is essential for the best effects.

Calcipotriol One of the most widely used prescription products for psoriasis is the vitamin D_3 analogue, calcipotriol (Dovonex). It is cosmetically pleasant to use and is more effective than short-contact dithranol or coal tar. Calcipotriol should be applied thickly twice a day in order to achieve the best effect. A recent study has shown that when the optimal amount is applied, many apparent non-responders derive significant benefits. It can take up to eight weeks for the full therapeutic effects of calcipotriol to be seen and it is important to continue with treatment. Calcipotriol sometimes causes mild irritation when first used, but this is usually transient. Its use in sensitive areas, such as the face and flexures is avoided for this reason.

A combination product containing calcipotriol and betamethasone (Dovobet) has recently been introduced. A maximum of 15g of this ointment can be used each day.

Scalp treatments Regular use of a tar-containing shampoo may be sufficient to control very mild scalp psoriasis. Severe scalp psoriasis, where the scalp is covered in thick scale, should be referred to a general practitioner and treatment is likely to involve two stages. First, treatment is required to soften and remove the scale — usually arachis oil or compound coconut oil ointment. This allows active treatments, used in the second stage, to have maximum potential benefit in controlling the disease process. Scalp application of calcipotriol and steroids are used. It is helpful to warn patients that some of the lotions contain alcohol that can sting if the scalp is scratched or cracked. If this makes the product intolerable for the patient it may be necessary to change to an alternative alcohol-free product.

Panel 4: When to refer

Patients with skin diseases should be referred to their GP:

- If there is uncertainty about the diagnosis
- If eczema fails to respond to seven days' treatment with a moderately potent topical steroid
- If there is severe eczema or psoriasis affecting the face, armpits or genital area
- If bacterial infection of eczema is suspected (crusting, weeping, pustulation, unusual inflammation and redness or sudden worsening of eczema) or co-existent viral or fungal infections are suspected
- In cases of severe eczema or psoriasis affecting a child under 12 years old or a pregnant woman
- If there is severe, persistent acne (where there is a risk of scarring)

Patient support groups

Skin disease can be frustrating and demoralising. Patient support groups offer valuable information and reassurance.

- Acne Support Group
  Tel: 0870 870 2263; www.stopspots.org
- National Eczema Society
  Tel: 0870 241 3604; www.eczema.org
- The Psoriasis Association
  Tel: 01604 711129
- The Psoriatic Arthropathy Alliance
  Tel: 0870 7703212; www.paalliance.org

Acne

Acne is a chronic skin disease characterised by comedones (blackheads and whiteheads), papules, pustules, cysts and scars. It mainly affects young people between the ages of 12 and 25 years, although it can persist for longer. The hormonal changes of puberty play a central role in the development of acne but other factors, such as the presence of *Propionobacterium acnes*, poral occlusion and mechanical damage can contribute to the ongoing disease. Although for most people acne clears up as they get older, permanent scarring can be a problem if the condition is not treated effectively.

The available treatments include benzoyl peroxide, antibiotics, isotretinoin (a vitamin A derivative) and a hormonal treatment for women (Dianette). Of these, only benzoyl peroxide is available over the counter, and this represents the mainstay of treatment for the majority of patients with mild to moderate acne. Some preparations contain other ingredients such as potassium hydroxyquinoline sulphate (Quinoderm) or miconazole (Acnidazil) that may improve the action against *P acnes*.

The objectives of treatment are to:

- Clear the skin
- Prevent new spots from appearing
- Prevent scarring

Benzoyl peroxide is available as creams, lotions, gels and washes, in concentrations of 2.5, 5 and 10 per cent. Since benzoyl peroxide can be very irritant (causing dryness and flaking), patients should be advised to start with the lowest concentration and work upwards. In general, a cream, lotion or gel is more likely to be effective than a wash because it remains in contact with the skin. Regardless of which product is chosen, it will not be effective unless it is used correctly. Topical acne treatments must be:

- Applied to the whole of the acne-prone area and not just dabbed on to spots
- Applied for a period of two months

It is important to ensure that acne sufferers understand these two points because failed treatment leads to misery, despondency and a risk of permanent scarring.

Summary

Chronic skin diseases are common and, in surveys, patients often say that they would like more information about how to use the treatments. Guidance on correct use of OTC and prescription skin products can have a major impact on the overall effectiveness of treatment.

National Eczema Week

National Eczema Week 2002 is 21–28 September 2002 and the theme will be "I'm itching, who's listening?".

The National Eczema Society is launching a professional membership scheme during National Eczema Week 2002. The scheme will provide detailed information and support for health care professionals, alongside a dedicated help line and access to a wide variety of printed information. The society hopes the scheme will develop patient and health professional partnerships that will lead to better understanding, communication and health care provision.