How to reassure patients with topical steroid phobia

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Topical steroids are the mainstay of treatment in atopic dermatitis, but 60–80 per cent patients or carers have an aversion to using them due to the potential side-effects. Here, the authors discuss topical steroid phobia and the importance of communication in its management.

There are a vast number of topical steroid preparations available, which are prescribed frequently both by dermatologists and in primary care. These are known to be effective in a variety of skin diseases through anti-inflammatory, antiproliferative and vasoconstrictive actions.

Often, however, patients express a desire to avoid their use, declining a prescription or returning to their next appointment with no improvement and a full tube of cream. This is frustrating for both patient and healthcare professional and can have a significant impact on the success of treatment.

A better understanding of this behaviour and the reasons behind it will enable us to equip patients to make a more informed choice about their treatment, thus avoiding suboptimal clinical effectiveness and costly wastage of resources.

Reasons for aversion to topical steroids

There are several issues that contribute to topical steroid phobia, not least the side-effects, such as skin atrophy, striae and adrenal suppression, associated with prolonged excessive use of more potent steroids (see Figure 1). The BNF warns about these, stating: ‘In order to minimise the side-effects of a topical corticosteroid, it is important to apply it thinly to affected areas only, no more frequently than twice daily, and to use the least potent formulation which is fully effective’.1

This overcautious approach is reinforced by many doctors, nurses and pharmacists in their verbal advice to patients. The literature shows this to be interpreted negatively by patients, however, forming the basis of a fear of drug application.2 The package inserts repeat

Figure 1. Thinning of the skin due to steroid use; providing consistent accurate information is key to dispelling steroid phobia.
the concerns of the BNF, and the lay public now seem fully aware of the ‘dangers’.
With this overwhelming anxiety, perhaps it is not surprising that the alarm is easy to perpetuate.

Evidence for harm
However, the evidence from large systematic reviews is that mild to moderate potency steroids pose little or no risk to patients when used appropriately. There is work showing temporary reversible suppression of the hypothalamic-adrenal axis when potent or superpotent preparations are used over periods of months or years, usually to large skin areas, but cortisol levels appear to return to normal range on stopping.

In a large randomised controlled trial striae developed in just 1 per cent of adults freely applying 0.1 per cent triamcinolone (Aureocort) to the body or hydrocortisone to the face, neck and skin creases without restriction over a period of one year.

In terms of skin atrophy a recent systematic review found clinical rates of 0–5 per cent in 13 relevant studies in psoriatic patients with steroid treatment duration of between four weeks and a year. Although hydrocortisone 1 per cent can significantly decrease measured epidermal thickness after just two weeks of twice-daily application to normal forehead skin, it reverses within four weeks of withdrawal.

Furthermore, a review of eczema randomised controlled trials found no evidence of harm concerning skin thinning in short-term studies specifically addressing this.

Application of topical steroids
There is a recognised lack of evidence and practical consensus for healthcare professionals on the standard way to apply steroid creams and ointments, which can result in inconsistent recommendations being given to users.

There are a bewildering number of preparations and it is a complicated exercise to describe how to correctly use topical treatments, despite the introduction of fingertip units (FTUs). Sparse labelling with limited written instructions may contribute to underconfidence in application.

A French study also demonstrated concerns about how to apply treatments, with over 80 per cent feeling they needed reassurance about topical steroid use and more than 70 per cent being afraid of applying too much. It also showed a lack of consistency in the advice given by healthcare professionals. This lack of clear advice significantly correlated with phobia.

There is also clearly a lack of understanding among patients regarding strength and safe application of treatments, with some literature reporting up to 40 per cent of patients incorrectly grading the potency of their preparations.

All of these factors directly impact on treatment, as a third of patients with worries about steroid use admitted to non-adherence at some stage.

The key to dispelling steroid phobia starts with the communication of consistent, accurate information about the medications and how to correctly use them. Work shows that the GP is the most common source of patient education regarding safely applying topical steroids and their side-effects.

GPs have the opportunity to make the patient or carer aware of the relative potencies of the preparations they are being given along with the relevant side-effects in context while avoiding excessive precaution.

The use of topical steroids is common in the management of atopic dermatitis in children and at each consultation the GP should explain the severity of the child’s eczema to the child and their parents or carers. NICE guidelines recommends a stepped approach for management of atopic dermatitis in children – treatment can be stepped up or down, according to the severity of symptoms.

Particular care is advisable at high-risk sites such as the face, genitalia and skin creases where skin is thinner and absorption greater. With a smaller surface area to volume ratio in children, care when using very widespread topical steroids is required; potent preparations used daily over many months could suppress the hypothalamic-adrenal axis if this is not considered when prescribing. In reality, this is extremely unlikely if such children are being medically supervised.

<table>
<thead>
<tr>
<th>Area of body</th>
<th>Creams and ointments</th>
</tr>
</thead>
<tbody>
<tr>
<td>face and neck</td>
<td>15–30g</td>
</tr>
<tr>
<td>both hands</td>
<td>15–30g</td>
</tr>
<tr>
<td>scalp</td>
<td>15–30g</td>
</tr>
<tr>
<td>both arms</td>
<td>30–60g</td>
</tr>
<tr>
<td>both legs</td>
<td>100g</td>
</tr>
<tr>
<td>trunk</td>
<td>100g</td>
</tr>
<tr>
<td>groin and genitalia</td>
<td>15–30g</td>
</tr>
</tbody>
</table>

These amounts are usually suitable for an adult for a single daily application for 2 weeks.

Table 1. Suitable quantities of topical steroid to be prescribed for application to various body sites as recommended by the BNF

Media publicity is probably also unhelpful, along with general public confusion about the relationship between topical, anabolic and oral steroids and their negative connotations.

Just to complicate matters a little further, there are definite problems when potent steroid preparations are applied to delicate skin sites, particularly the face, axillae and inguinal folds.

An understanding of steroid potencies is necessary to avoid such problems (do not use potent steroids at these sites). Undergraduate and postgraduate training in dermatology aims to teach these basics, but they are not often repeated in other areas of medical education.

Management of steroid phobia
Steroid phobia is most widely researched in the context of atopic dermatitis where topical steroids remain the mainstay of treatment. It has been shown to be common, affecting between 60 and 80 per cent of patients or parents of children with this condition.

Interestingly, there does not appear to be a particular patient group at risk, with several studies indicating no significant effect of age, gender, eczema duration or outpatient status on likelihood of worry. This is a phenomenon potentially affecting all users.

The commonest fears are of perceived risk of skin thinning, nonspecific long-term effects and systemic absorption.

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It is important to reassure patients that when used correctly there is a very small risk of problems but a great potential benefit in managing their disease.

As a guide to prescribing adequate amounts of topical steroid to apply, the FTU has been proposed as a simple and universal measure. One FTU is the quantity expressed from a 5mm-diameter nozzle from the distal skin-crease to the tip of the index finger. This approximates to 500mg and should cover the area equivalent to two flat adult handprints.

This gives a quantifiable guide for patients and healthcare professionals and should be explained and demonstrated. An expert consensus group recently recommended this as well as emphasis on the need for enough steroid to adequately cover an area rather than ‘thinly’. Appropriate quantities for prescription suggested in the BNF are shown in Table 1.

Written instructions are extremely helpful and should be given out wherever possible. There are excellent patient information leaflets from the National Eczema Society and the British Association of Dermatologists that are freely accessible online. Expert nursing time and consultation can be invaluable in educating patients and addressing and allaying concerns.

Monitoring and review of patients with chronic eczema and history of recurrent flares, who require frequent use of topical steroids, at 6–12-monthly intervals by the GP would be a reasonable approach to ensure adequate symptom control and also to prevent side-effects.

Emollients should always be used in eczema and there are also now some effective alternative topical immunosuppressant treatments that can be used in cases of intractable steroid phobia. These include the calcineurin inhibitors – pimecrolimus 1 per cent (Elidel) and tacrolimus 0.03 and 0.1 per cent (Protopic), which are immunomodulating anti-inflammatory agents with effects specifically on T cells.

NICE currently recommends their use in those over the age of two in eczema uncontrolled by topical steroids or where they are causing side-effects. Tacrolimus can be used as second-line therapy in those with moderate to severe atopic eczema, and pimecrolimus in children with moderate eczema on the face and neck.

There is a risk of local side-effects on initial application with up to 50 per cent experiencing irritation, itching and burning, but these often improve within a week and there is no risk of adrenal suppression or skin thinning. These drugs are a useful option when steroid phobia is still affecting treatment despite detailed patient education.

**Conclusion**

GP s have the opportunity to make a real difference in patients requiring topical steroids, particularly in the long term, through clear, correct and consistent advice on their use from the outset. Effective communication in a good doctor-patient relationship, giving accurate and understandable written and verbal information, is crucial.

Framing the very small risk of side-effects in context with plenty of reassurance about the safety and benefit of appropriate treatment could relieve steroid phobia and prevent it from occurring.

**References**

1. BNF 65. September 2013.

**Declarations of interests**

None to declare.

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