Medicines Evidence Commentary

commentary on important new evidence from Medicines Awareness Weekly

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Atopic eczema: topical corticosteroid phobia

A systematic review looked at the evidence on the prevalence and origin of topical corticosteroid (steroid) phobia in atopic dermatitis (eczema) and its effect on treatment adherence. Phobia was broadly defined as worries, anxieties, fears, concerns or reluctance about using topical steroids. In 16 observational studies, the prevalence of topical steroid phobia ranged from 21.0% to 83.7% and people reporting such phobia had higher nonadherence rates than those without phobia. This study highlights the importance of informed shared decision making when following the NICE guideline on atopic eczema in under 12s, which recommends that the benefits and harms of treatment with topical steroids are discussed with children and their parents or carers, emphasising that the benefits outweigh possible harms when they are applied correctly.

Overview and current advice

Atopic eczema is a chronic inflammatory itchy skin condition that develops in early childhood in the majority of cases. It is typically an episodic disease of exacerbation (flares, which may occur as frequently as two or three per month) and remissions. In some cases it may be continuous (NICE guideline on atopic eczema in under 12s: diagnosis and management).

Emollients are a first-line therapy for atopic eczema and aim to retain the skin’s barrier function and to prevent painful cracking. Frequent and continuous use is recommended even in the absence of symptoms. Topical corticosteroids (steroids) are the first-line treatment for flare-ups of atopic eczema. In order to reduce exposure to topical steroids, they are used only intermittently to control exacerbations. Treatment regimens for topical steroids vary with disease severity, with clinicians usually recommending use of the mildest potency products possible to treat the condition, in order to minimise the potential adverse effects. Emollients are used together with the topical steroids. The NICE technology appraisal: frequency of application of topical corticosteroids for atopic eczema recommends that topical steroids for atopic eczema should be prescribed for application only once or twice daily. Where more than one alternative topical steroid is considered clinically appropriate within a potency class, the drug with the lowest acquisition cost should be prescribed, taking into account pack size and frequency of application.

Poor adherence is a major cause of treatment failure in atopic eczema and a reason for this is fear of adverse effects (NICE Clinical Knowledge Summary: Corticosteroids). The NICE guideline on atopic eczema in under 12s: diagnosis and management gives recommendations on how to use topical steroids in children with atopic eczema, including tailoring the potency of topical steroids to the severity, which may vary according to body site. It highlights that healthcare professionals should discuss the benefits and harms of treatment with topical steroids with children and their parents or carers, emphasising that the benefits outweigh possible harms when they are applied correctly. The NICE guideline: medicines adherence: involving patients in decisions about prescribed medicines and
**supporting adherence** advises prescribers to be aware that peoples’ concerns about medicines may affect how and whether they take their prescribed medicines. People should be asked if they have any specific concerns about their medicines whenever they are prescribed, dispensed or reviewed. The NICE guideline on **medicines optimisation** recommends that all people are offered the opportunity to be involved in making decisions about their medicines. It gives further suggestions on how to do this, including offering the person, and their family members or carers where appropriate, the opportunity to use a **patient decision aid** (when one is available).

The NICE interactive flowchart on **eczema** brings together all related NICE guidance and associated products on this topic in a set of interactive topic-based diagrams.

**New evidence**

A **systematic review** of observational studies summarised the current evidence on the prevalence, origin and effect on treatment adherence of topical steroid phobia in people with atopic eczema (**Li et al. 2017**). The review included English-language articles where topical steroid phobia was assessed in participants with atopic eczema. Topical steroid phobia was defined by either being explicitly described as phobia in the paper or: worries, anxieties, fears, concerns or reluctance related to topical steroid use in atopic eczema.

The analysis included 16 **cross-sectional** studies (n=6,242), with sample sizes ranging from 77 to 2002 people. In the 8 studies that reported the ages of the people prescribed topical steroids, the mean age ranged from 4.9 to 55.5 years. Where children were prescribed topical steroids, phobia of the parents or carers was usually assessed. Studies were published between 1996 and 2017 and were conducted across 16 different countries, including two in the UK. Ten of the 16 papers used the term “phobia” but there was variation around how the term was defined.

For each included study, the authors extracted the prevalence of topical steroid phobia, which ranged from 21.0% (95% confidence interval [CI] 15.8% to 26.2%) to 83.7% (95% CI 81.9% to 85.5%). The lowest prevalence was observed in a study including only caregivers of paediatric patients and the highest prevalence was observed in a study that only included adults prescribed topical steroids.

Ten of the 16 studies reported on nonadherence rates but only 2 studies compared the nonadherence rates between people with and without topical steroid phobia. One paper found a higher proportion of people with topical steroid phobia reporting a history of partial adherence (49.4%; 42/85) or nonadherence (14.1%; 12/85) compared with people without topical steroid phobia reporting a history of partial adherence (29.3%; 12/41) or nonadherence (9.8%; 4/41). Similarly, another paper also reported a higher proportion of people with topical steroid phobia not adhering to treatment (57.7%; 90/156) compared with those without topical phobia (25%; 63/252), $x^2$ test $p < 0.001$.

Four studies were summarised for patient/parent/carer reported concerns related to topical steroid use. The most frequently reported concern was skin thinning, ranging from 27.3% (95% CI 20.5% to 34.1%) to 55.3% (95% CI 47.3% to 62.7%). The potential for topical steroids to affect growth and development was the second most frequently reported concern.

The authors also investigated the potential sources of information on topical steroids. Four studies investigated the sources of such information with the most frequently reported as physicians and healthcare workers. However, these papers didn’t provide any comparison of clinical outcomes between people with and without topical steroid phobia.

**Commentary**

**Commentary provided by NICE**

The authors of this systematic review concluded that, despite their safety when used correctly (see **Overview and current advice** for relevant NICE guidance), the use of topical steroids is often met with
anxiety and fear by patients (and their parents or carers), and topical steroid phobia is being increasingly recognised as playing a key role in poor treatment adherence in atopic eczema. They also expressed concern that the methods characterising and defining topical steroid phobia lack standardisation. The authors suggested using the TOPICOP® scale, a 12-item questionnaire that was developed by Moret et. al. as a standardised assessment tool for topical steroid phobia. However, further studies are needed to validate the TOPICOP® scale before it can be used routinely.

In addition to the lack of a standard definition of topical steroid phobia, the observational nature of the studies in this review means they are susceptible to bias and confounding. Only 2 of the 16 studies compared adherence rates between people with and without reported topical steroid phobia. The remaining 14 studies were non-comparative and the differences in clinical outcomes between people with and without topical steroid phobia could not be assessed. Exclusion of non-English studies and the robustness of the search strategy were also highlighted by the authors as potential limitations of the study.

Assessing topical steroid phobia in people with atopic eczema could provide a potential target for early intervention by healthcare professionals and an opportunity to increase people’s adherence. Two particular areas of concern were highlighted by this paper: the potential for skin thinning and the effect on growth and development. This study highlights the importance of following the NICE guideline on atopic eczema in under 12s, which recommends that the benefits and harms of treatment with topical steroids are discussed with children and their parents or carers, emphasising that the benefits outweigh possible harms when they are applied correctly. Its conclusions are also consistent with the NICE guideline on medicines adherence, which encourages prescribers to uncover patients’ concerns about their medicines and the NICE guideline on medicines optimisation, which recommends that all people are offered the opportunity to be involved in making decisions about their medicines.

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**References**
