NICE National Institute for Health and Care Excellence

NICE guideline

Atopic eczema in under 12s: diagnosis and management

Clinical guideline
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Your responsibility

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations, and the guideline does not override the responsibility to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.

All problems (adverse events) related to a medicine or medical device used for treatment or in a procedure should be reported to the Medicines and Healthcare products Regulatory Agency using the Yellow Card Scheme.

Local commissioners and providers of healthcare have a responsibility to enable the guideline to be applied when individual professionals and people using services wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with complying with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Contents

This guideline is the basis of QS44.

This guideline should be read in conjunction with NG190.

Overview

This guideline covers diagnosing and managing atopic eczema in children under 12. It aims to improve care for children with atopic eczema by making detailed recommendations on treatment and specialist referral. The guideline also explains how healthcare professionals should assess the effect eczema has on quality of life, in addition to its physical severity.

Who is it for?

- Healthcare professionals
- Commissioners and providers
- Children under 12 with suspected or diagnosed atopic eczema and their families or carers

Recommendations

People have the right to be involved in discussions and make informed decisions about their care, as described in NICE's information on making decisions about your care.

Making decisions using NICE guidelines explains how we use words to show the strength (or certainty) of our recommendations, and has information about prescribing medicines (including off-label use), professional guidelines, standards and laws (including on consent and mental capacity), and safeguarding.

1.1 Diagnosis

1.1.1.1 Take clinical and drug histories of children with atopic eczema, including questions about:

- time of onset, pattern and severity of the atopic eczema
- response to previous and current treatments
- possible trigger factors (irritant and allergic)
- the impact of the atopic eczema on the child and their parents or carers
- dietary history, including any dietary manipulation
- growth and development
- personal and family history of atopic conditions. **[2007]**

1.1.1.2 Diagnose atopic eczema when a child has an itchy skin condition plus 3 or more of the following:

- visible flexural dermatitis involving the skin creases, such as the bends of the elbows or behind the knees (or visible dermatitis on the cheeks and/or extensor areas in children aged 18 months or under)

- previous flexural dermatitis (or dermatitis on the cheeks and/or extensor areas in children aged 18 months or under)
- dry skin in the last 12 months
- asthma or allergic rhinitis (or history of atopic disease in a first-degree relative of children aged under 4 years)
- onset of signs and symptoms under the age of 2 years (do not use this criterion in children aged under 4 years).

  Healthcare professionals should be aware that in Asian, Black Caribbean and Black African children, atopic eczema can affect the extensor surfaces rather than the flexures, and discoid (circular) or follicular (around hair follicles) patterns may be more common. **[2007]**

1.2 Assessing severity, psychological and psychosocial wellbeing and quality of life

1.2.1.1 Use a holistic approach when assessing a child's atopic eczema at each consultation, taking into account:

- the severity of the atopic eczema
- the child's quality of life, including everyday activities, sleep, and psychosocial wellbeing (see table 1)
- that there is not necessarily a direct relationship between the severity of the atopic eczema and the impact it has on quality of life. **[2007]**

Table 1 Holistic assessment

Skin and physical severity	Impact on quality of life and psychosocial wellbeing
Clear: normal skin, no evidence of active atopic eczema	None: no impact on quality of life

Skin and physical severity	Impact on quality of life and psychosocial wellbeing
Mild: areas of dry skin, infrequent itching (with or without small areas of redness)	Mild: little impact on everyday activities, sleep and psychosocial wellbeing
Moderate: areas of dry skin, frequent itching, redness (with or without excoriation and localised skin thickening)	Moderate: moderate impact on everyday activities and psychosocial wellbeing, frequently disturbed sleep
Severe: widespread areas of dry skin, incessant itching, redness (with or without excoriation, extensive skin thickening, bleeding, oozing, cracking and alteration of pigmentation)	Severe: severe limitation of everyday activities and psychosocial functioning, nightly loss of sleep

1.2.1.2 Explain the physical severity category (see table 1) of the atopic eczema to the child and their parents or carers. **[2007]**

1.2.1.3 Assess whether the child's atopic eczema is consistent in severity, or whether there are areas of differing severity. If there are areas of differing severity, treat each area independently. **[2007]**

1.2.1.4 During an assessment of psychological and psychosocial wellbeing and quality of life, take into account the impact of atopic eczema on parents or carers as well as the child, and provide them with advice and support. **[2007]**

1.2.1.5 When deciding treatment strategies, take into account that all categories of severity of atopic eczema can have a negative impact on psychological and psychosocial wellbeing and quality of life. **[2007]**

1.2.1.6 Consider using the following additional tools to provide objective measures of the severity of atopic eczema, quality of life and response to treatment:

- visual analogue scales (0 to 10) capturing the child's and/or parents' or carers' assessment of severity, itch and sleep loss over the previous 3 days and nights
- validated tools:

- Patient-Oriented Eczema Measure (POEM) for severity
- Children's Dermatology Life Quality Index (CDLQI), Infants' Dermatitis Quality of Life Index (IDQoL) or Dermatitis Family Impact (DFI) questionnaire for quality of life. **[2007]**

1.3 Discussing related conditions and how atopic eczema may change over time

1.3.1.1 Explain to children with atopic eczema and their parents or carers that:

- the condition often improves with time, but not all children will grow out of atopic eczema and it may get worse in teenage or adult life
- children with atopic eczema often develop asthma and/or allergic rhinitis
- sometimes food allergy is associated with atopic eczema, particularly in very young children. **[2007]**

1.4 Identifying and managing trigger factors

1.4.1.1 When assessing children with atopic eczema, identify potential trigger factors, including:

- irritants, for example soaps and detergents (including shampoos, bubble baths, shower gels and washing-up liquids)
- skin infections
- contact allergens
- food allergens
- inhalant allergens. **[2007]**

1.4.1.2 Consider a diagnosis of food allergy in:

- children with atopic eczema who have had immediate symptoms from eating a particular food
- babies and young children with moderate or severe atopic eczema that has not been controlled by optimum management, particularly if associated with gut dysmotility (colic, vomiting, altered bowel habit) or failure to thrive. **[2007]**

1.4.1.3 Consider a diagnosis of inhalant allergy in:

- children with seasonal flares of atopic eczema
- children with atopic eczema associated with asthma or allergic rhinitis
- children aged 3 years or over with atopic eczema on the face, particularly around the eyes. **[2007]**

1.4.1.4 Consider a diagnosis of allergic contact dermatitis in children with:

- an exacerbation of previously controlled atopic eczema, or
- reactions to topical treatments. **[2007]**

1.4.1.5 Reassure children with mild atopic eczema and their parents or carers that most children with mild atopic eczema do not need to have tests for allergies. **[2007]**

1.4.1.6 Advise children with atopic eczema and their parents or carers not to use high street or internet allergy tests, because there is no evidence of their value in managing atopic eczema. **[2007]**

1.4.1.7 For bottle-fed babies aged under 6 months with moderate or severe atopic eczema that has not been controlled by optimal treatment with emollients and mild topical corticosteroids, offer a 6- to 8-week trial of an extensively hydrolysed protein formula or amino acid formula in place of cow's milk formula. **[2007]**

1.4.1.8 Refer children with atopic eczema for specialist dietary advice if they have followed a cow's milk-free diet for longer than 8 weeks. **[2007]**

1.4.1.9 Do not use diets based on unmodified proteins of other species' milk (for example, goat's milk or sheep's milk) or partially hydrolysed formulas to manage suspected cow's milk allergy in children with atopic eczema. **[2007]**

1.4.1.10 Offer diets that include soya protein along with specialist dietary advice for children aged 6 months or over. **[2007]**

1.4.1.11 For children who are being breast fed, explain that it is not known whether changing the mother's diet will reduce the severity of the atopic eczema. If food allergy is strongly suspected, consider a trial of an allergen-specific exclusion diet. **[2007]**

1.4.1.12 Explain to children with atopic eczema and their parents or carers that:

- it is unclear what role factors such as stress, humidity or extremes of temperature have in causing flares of atopic eczema, and
- they should avoid these factors when possible. **[2007]**

1.5 Treatment

Stepped approach to management

1.5.1.1 Use the stepped approach in table 2 for managing atopic eczema in children.

- Emollients are the basis of management and should always be used, even when atopic eczema is clear.
- Management can then be stepped up or down, according to the severity of symptoms, with the addition of the other treatments listed in table 2. **[2007]**

Table 2 Stepped treatment options

Mild atopic eczema	• emollients • mild-potency topical corticosteroids.

Moderate atopic eczema	• emollients • moderate-potency topical corticosteroids • topical calcineurin inhibitors • bandages.
Severe atopic eczema	• emollients • potent topical corticosteroids • topical calcineurin inhibitors • bandages • phototherapy • systemic therapy.

1.5.1.2 Offer children with atopic eczema and their parents or carers information on how to recognise flares of atopic eczema (increased dryness, itching, redness, swelling and general irritability). Give clear instructions on how to manage flares according to the stepped-care plan, and prescribe treatments that allow children and their parents or carers to follow this plan. **[2007]**

1.5.1.3 Start treatment for flares of atopic eczema as soon as signs and symptoms appear, and continue treatment for approximately 48 hours after symptoms subside. **[2007]**

Emollients

Emollient creams are vital in helping to manage dry skin conditions, but there are Medicines and Healthcare products Regulatory Agency (MHRA) warnings about fire hazards associated with build-up of emollient residue on clothing and bedding.

1.5.1.4 Offer children with atopic eczema a choice of unperfumed emollients to use every day for moisturising. This may be a combination of products or one product for all purposes. Prescribe large quantities of leave-on emollients (250 g to 500 g weekly) that are easily available to use at nursery, pre-school or school. **[2007, amended 2023]**

1.5.1.5 Explain to children with atopic eczema and their parents or carers that they should use emollients:

- in larger amounts and more often than other treatments
- on their whole body, both when the atopic eczema is clear and while using all other treatments. **[2007]**

1.5.1.6 Show children with atopic eczema and their parents or carers how to apply emollients, including how to smooth emollients onto the skin rather than rubbing them in. **[2007]**

1.5.1.7 If their current emollient causes irritation or is not acceptable, offer a different way to apply it or offer an alternative emollient. **[2007, amended 2023]**

1.5.1.8 Review repeat prescriptions of individual products and combinations of products with children with atopic eczema and their parents or carers at least once a year. **[2007]**

1.5.1.9 When children with atopic eczema are using emollients and other topical products at the same time of day, explain that:

- they should apply one product at a time, and wait several minutes before applying the next product
- they can choose which product to apply first. **[2007, amended 2023]**

1.5.1.10 Offer personalised advice on washing with emollients or emollient soap substitutes, and explain to children with atopic eczema and their parents or carers that:

- they should use leave-on emollients or emollient soap substitutes instead of soaps and detergent-based wash products

- leave-on emollients can be added to bath water
- children aged under 12 months should use leave-on emollients or emollient soap substitutes instead of shampoos
- older children using shampoo should use a brand that is unperfumed and ideally labelled as suitable for eczema, and they should avoid washing their hair in bath water. **[2007, amended 2023]**

1.5.1.11 Do not offer emollient bath additives to children with atopic eczema. **[2023]**

For a short explanation of why the committee made the 2023 recommendations and how they might affect practice, see the rationale and impact section on emollient bath additives.

Full details of the evidence and the committee's discussion are in evidence review A: adding bath emollients to the management of atopic eczema in children under 12 years.

Topical corticosteroids

1.5.1.12 Discuss the benefits and harms of treatment with topical corticosteroids with children with atopic eczema and their parents or carers, emphasising that the benefits outweigh possible harms when they are applied correctly. **[2007]**

1.5.1.13 Tailor the potency of topical corticosteroids to the severity of the child's atopic eczema (which may vary according to body site):

- use mild potency for mild atopic eczema
- use moderate potency for moderate atopic eczema
- use potent for severe atopic eczema
- use mild potency for the face and neck, except for short-term (3 to 5 days) use of moderate potency for severe flares
- use moderate or potent preparations for short periods only (7 to 14 days) for

flares in vulnerable sites such as axillae and groin

- do not use very potent preparations in children without specialist dermatological advice. **[2007]**

1.5.1.14 In line with NICE technology appraisal guidance on topical corticosteroid application, prescribe topical corticosteroids for atopic eczema for application only once or twice daily. If more than one alternative topical corticosteroid is considered clinically appropriate within a potency class, prescribe the drug with the lowest acquisition cost, taking into account pack size and frequency of application. For full details, see the guidance on frequency of application of topical corticosteroids (TA81, 2004).

1.5.1.15 Explain to children with atopic eczema and their parents or carers that they should only apply topical corticosteroids to areas of active atopic eczema (or eczema that has been active within the past 48 hours), which may include areas of broken skin. **[2007]**

1.5.1.16 If a mild or moderately potent topical corticosteroid has not controlled the atopic eczema within 7 to 14 days:

- exclude secondary bacterial or viral infection
- for children aged 12 months or over, use potent topical corticosteroids for as short a time as possible (no longer than 14 days, and not on the face or neck)
- if the atopic eczema is still uncontrolled, review the diagnosis and refer the child for specialist dermatological advice. **[2007]**

1.5.1.17 Do not use potent topical corticosteroids in children aged under 12 months without specialist dermatological supervision. **[2007]**

1.5.1.18 When dispensing topical corticosteroids, apply labels stating the potency class to the container (for example, the tube), not the outer packaging. **[2007]**

1.5.1.19 Once the atopic eczema has been controlled, consider treating problem areas with topical corticosteroids for 2 consecutive days per week to prevent flares in children with frequent flares (2 or 3 per month). Review this strategy within 3 to

6 months. **[2007]**

1.5.1.20 Consider a different topical corticosteroid of the same potency as an alternative to stepping up treatment if tachyphylaxis to a topical corticosteroid is suspected in children with atopic eczema. **[2007]**

Topical calcineurin inhibitors

1.5.1.21 Topical tacrolimus and pimecrolimus are not recommended in NICE technology appraisal guidance for treating mild atopic eczema, or as first-line treatments for atopic eczema of any severity. For full details, see the guidance on tacrolimus and pimecrolimus (TA82, 2004).

1.5.1.22 Topical tacrolimus is recommended as an option in NICE technology appraisal guidance for the second-line treatment of moderate to severe atopic eczema in children aged 2 years and older that has not been controlled by topical corticosteroids, where there is a serious risk of important adverse effects from further topical corticosteroid use, particularly irreversible skin atrophy. For full details, see the guidance on tacrolimus (TA82, 2004).

1.5.1.23 Pimecrolimus is recommended as an option in NICE technology appraisal guidance for the second-line treatment of moderate atopic eczema on the face and neck in children aged 2 years and older that has not been controlled by topical corticosteroids, where there is a serious risk of important adverse effects from further topical corticosteroid use, particularly irreversible skin atrophy. For full details, see the guidance on pimecrolimus (TA82, 2004).

1.5.1.24 Start treatment with tacrolimus or pimecrolimus only with specialist dermatological advice, and only after careful discussion with the child and their parents or carers about the potential risks and benefits of all appropriate second-line treatment options. **[2004]**

1.5.1.25 Explain to children with atopic eczema and their parents or carers that they should only apply topical calcineurin inhibitors to areas of active atopic eczema, which may include areas of broken skin. **[2007]**

1.5.1.26 Do not use topical calcineurin inhibitors under occlusion (bandages and dressings) for treating atopic eczema in children without specialist dermatological advice. **[2007]**

1.5.1.27 For facial atopic eczema in children that requires long-term or frequent use of mild topical corticosteroids, consider stepping up treatment to topical calcineurin inhibitors. **[2007]**

Dry bandages and medicated dressings (including wet wrap therapy)

1.5.1.28 Do not use occlusive medicated dressings and dry bandages to treat infected atopic eczema in children. **[2007]**

1.5.1.29 Think about using localised medicated dressings or dry bandages with emollients as a treatment for areas of chronic lichenified (localised skin thickening) atopic eczema in children. **[2007]**

1.5.1.30 Think about using localised medicated dressings or dry bandages with emollients and topical corticosteroids for short-term treatment of flares (7 to 14 days) or areas of chronic lichenified atopic eczema in children. **[2007]**

1.5.1.31 Do not use whole-body (limbs and trunk) occlusive dressings (including wet wrap therapy) or whole-body dry bandages (including tubular bandages and garments) as first-line treatment for atopic eczema in children. If using these treatments, they should be started by a healthcare professional trained in their use. **[2007]**

1.5.1.32 When combining whole-body (limbs and trunk) occlusive dressings (including wet wrap therapy) with topical corticosteroids for atopic eczema in children:

- use initially for 7 to 14 days
- seek specialist dermatological advice before continuing this combination for longer
- think about stopping the topical corticosteroids and continuing the dressings alongside emollients until the atopic eczema is controlled. **[2007]**

Antihistamines

1.5.1.33 Do not routinely use oral antihistamines to manage atopic eczema in children. **[2007]**

1.5.1.34 For children with severe atopic eczema or children with mild or moderate atopic eczema who have severe itching or urticaria, offer a 1-month trial of a non-sedating antihistamine. If treatment is successful, think about continuing it while symptoms persist, and review every 3 months. **[2007]**

1.5.1.35 If sleep disturbance has a significant impact on the child or parents or carers, offer a 7- to 14-day trial of an age-appropriate sedating antihistamine to children aged 6 months or over during an acute flare of atopic eczema. Think about repeating this during subsequent flares. **[2007]**

Managing infections

See also the section on managing secondary bacterial infections of eczema in the NICE guideline on treating secondary bacterial infection of eczema and other common skin conditions: antimicrobial prescribing.

1.5.1.36 Offer children with atopic eczema and their parents or carers information on how to recognise the symptoms and signs of bacterial infection with staphylococcus and/or streptococcus:

- weeping
- pustules
- crusts
- eczema failing to respond to therapy
- rapidly worsening eczema
- fever
- malaise.

Provide clear information on how to access treatment for infected atopic eczema. **[2007]**

1.5.1.37 Explain to children with atopic eczema and their parents or carers that they should obtain new supplies of their topical atopic eczema medications after treatment for infected atopic eczema. This is because their medications can become contaminated and act as a source of infection. **[2007]**

1.5.1.38 Consider herpes simplex (cold sore) infection if a child's infected atopic eczema fails to respond to treatment with antibiotics and an appropriate topical corticosteroid. **[2007]**

1.5.1.39 If a child with atopic eczema has a lesion on the skin that is suspected to be herpes simplex, treat with oral aciclovir even if the infection is localised. **[2007]**

1.5.1.40 If eczema herpeticum (widespread herpes simplex) is suspected in a child with atopic eczema, immediately start treatment with systemic aciclovir and refer the child for same-day specialist dermatological advice. If secondary bacterial infection is also suspected, start treatment with systemic antibiotics. **[2007]**

1.5.1.41 If eczema herpeticum involves the skin around the eyes, treat with systemic aciclovir and refer the child for same-day ophthalmological and dermatological advice. **[2007]**

1.5.1.42 Offer children with atopic eczema and their parents or carers information on how to recognise eczema herpeticum:

- areas of rapidly worsening, painful eczema
- clustered blisters that look like early-stage cold sores
- punched-out erosions (circular, depressed, ulcerated lesions), usually 1 mm to 3 mm, that are uniform in appearance (these may combine to form larger areas of erosion with crusting)
- possible fever, lethargy or distress. **[2007]**

Phototherapy and systemic treatments

1.5.1.43 Consider phototherapy or systemic treatments for severe atopic eczema in children when:

- other management options have failed or are inappropriate, and
- there is a significant negative impact on quality of life.

Only use phototherapy and systemic treatments under specialist dermatological supervision by staff who are experienced in working with children. **[2007]**

1.5.1.44 Only start phototherapy or systemic treatments in children with atopic eczema after assessment and documentation of severity of atopic eczema and quality of life (see recommendation 1.2.1.1). **[2007]**

Complementary therapies

1.5.1.45 Explain to children with atopic eczema and their parents or carers that the effectiveness and safety of the following therapies has not yet adequately been assessed in clinical trials:

- homeopathy
- herbal medicine
- massage
- food supplements. **[2007]**

1.5.1.46 Explain to children with atopic eczema and their parents or carers that:

- they should be cautious about using herbal medicines in children, particularly for products that are not labelled in English or that do not come with information about safe usage (see the MHRA's using herbal medicines: advice to consumers)
- topical corticosteroids are deliberately added to some herbal products

intended for use in children with atopic eczema

- liver toxicity has been associated with the use of some Chinese herbal medicines intended to treat atopic eczema. **[2007]**

1.5.1.47 Ask children with atopic eczema and their parents or carers to tell their healthcare professionals if they are using or intend to use complementary therapies. **[2007]**

1.5.1.48 Explain to children with atopic eczema and their parents or carers that if they plan to use complementary therapies, they should keep using emollients as well. **[2007]**

1.5.1.49 Advise children with atopic eczema and their parents or carers that using regular massage along with emollients may improve the atopic eczema. **[2007]**

1.6 Education and adherence to therapy

1.6.1.1 Provide education to children with atopic eczema and their parents or carers about atopic eczema and its treatment. Provide verbal and written information, with practical demonstrations, and cover:

- how much of the treatments to use
- how often to apply treatments
- when and how to step treatment up or down
- how to treat infected atopic eczema.

  Reinforce this at every consultation, addressing factors that affect adherence. **[2007]**

1.6.1.2 When discussing treatment options with children with atopic eczema and their parents and carers, tailor information to suit the child's cultural practices relating to skin care (including oiling the skin) and the way they bathe. **[2007]**

1.6.1.3 Explain to children with atopic eczema and their parents or carers that atopic eczema may temporarily cause the skin to become lighter or darker. **[2007]**

1.7 Indications for referral

1.7.1.1 Immediately (same day) refer children for specialist dermatological advice if eczema herpeticum is suspected (see recommendations 1.5.1.40 and 1.5.1.41). **[2007]**

1.7.1.2 Urgently (within 2 weeks) refer children for specialist dermatological advice if:

- their atopic eczema is severe and has not responded to optimal topical therapy after 1 week
- treatment of bacterially infected atopic eczema has failed. **[2007]**

1.7.1.3 Refer children with atopic eczema for specialist dermatological advice if:

- the diagnosis is, or has become, uncertain
- management has not controlled the atopic eczema satisfactorily, based on a subjective assessment by the child, parent or carer (for example, the child is having 1 to 2 weeks of flares per month or is having adverse reactions to many emollients)
- atopic eczema on the face has not responded to treatment
- the child or their parents or carers may benefit from specialist advice on how to apply treatments (for example, bandaging techniques)
- contact allergic dermatitis is suspected (for example, persistent atopic eczema or facial, eyelid or hand atopic eczema)
- the atopic eczema is causing significant social or psychological problems for the child or their parents or carers (for example, sleep disturbance or poor school attendance)
- atopic eczema is associated with severe and recurrent infections, especially deep abscesses or pneumonia. **[2007]**

1.7.1.4 If atopic eczema is responding to optimal management but the child's quality of life and psychosocial wellbeing has not improved, refer them for psychological advice. **[2007]**

1.7.1.5 Refer children with moderate or severe atopic eczema and suspected food allergy for specialist investigation and management. **[2007]**

1.7.1.6 Refer children with atopic eczema for specialist advice relating to growth if they are not growing at the expected growth trajectory (as reflected by UK growth charts). **[2007]**

Recommendations for research

The 2007 committee made the following recommendations for research.

1 Infant feeding

What is the optimal feeding regimen in the first year of life for children with established atopic eczema? **[2007]**

Why this is important

Dietary manipulation has the potential to decrease disease severity in children with proven food allergy. A study is needed to explore the potential benefits and harms of delaying the introduction of allergenic foods such as milk, egg and peanuts in babies with early signs of atopic eczema to assess the potential impact on atopic eczema severity and the subsequent development of food allergy, asthma and allergic rhinitis.

2 Prevention of flares

Which are the best, most cost-effective treatment strategies for managing and preventing flares in children with atopic eczema? **[2007]**

Why this is important

Atopic eczema is usually an episodic disease of exacerbation (flares) and remissions, except for severe cases where it may be continuous (2% to 6% of cases). Flares may occur as frequently as 2 or 3 times per month and have a very negative effect on quality of life. They are time consuming and expensive to treat.

There is limited evidence suggesting that strategies to prevent flares can reduce the number, frequency and severity of flares and the amount of treatment required. Identifying good strategies would improve patient care and quality of life, and free up NHS resources.

Strategies that could be considered in this research include continuous versus intermittent topical treatments or combinations of products such as topical corticosteroids and topical

calcineurin inhibitors.

3 Early intervention

What effect does improving the control of atopic eczema in the first year of life have on the long-term control and severity of atopic eczema and the subsequent development and severity of food allergy, asthma and allergic rhinitis? **[2007]**

Why this is important

Uncontrolled atopic eczema in children may progress to chronic disease involving the production of auto-immune antibodies to the skin. Early intervention to restore the defective skin barrier might alter the course of atopic eczema by preventing allergen penetration. A systematic review is needed to evaluate the available evidence on these factors. The results should feed into the design of a large randomised controlled trial investigating the long-term effect of controlling atopic eczema in the first year of life. Early effective treatment to control atopic eczema and the development of other atopic conditions would be extremely cost effective, have a major impact on service provision and improve the quality of life of children with atopic eczema and their parents and carers.

4 Adverse effects of topical corticosteroids

What are the long-term effects (when used for between 1 year and 3 years) of typical use of topical corticosteroids in children with atopic eczema? **[2007]**

Why this is important

Around 70% to 80% of parents and carers of children with atopic eczema are concerned about the side effects of topical corticosteroids, and this often prevents adherence to therapy (at least 25% of parents and carers report non-use because of anxiety). Despite the fact that topical corticosteroids have been in clinical use since 1962, there is limited data on their long-term effects (greater than a few weeks) on skin thickness, hypothalamic–pituitary–adrenal (HPA) axis suppression and other side effects.

Clinical consensus suggests that long-term use, within clinically recommended dosages, appears to be safe; research confirming this would greatly improve adherence to therapy and clinical outcomes, and reduce parental anxiety. The research could include

comparisons between children who use topical corticosteroids for shorter and longer periods, and with those who use other topical preparations such as emollients and topical calcineurin inhibitors.

5 Education and adherence to therapy

How effective and cost effective are different models of educational programmes in the early management of atopic eczema in children, in terms of improving adherence to therapy and patient outcomes such as disease severity and quality of life? **[2007]**

Why this is important

Atopic eczema is a common childhood disease affecting 1 in 5 children in the UK. Effective therapy improves quality of life for children with atopic eczema and their parents and carers, and can be provided for over 80% of children with atopic eczema in a primary care setting. It is known that a lack of education about therapy leads to poor adherence, and consequently to treatment failure.

Rationale and impact

This section briefly explains why the committee made the recommendations and how they might affect practice.

Emollient bath additives

Recommendations 1.5.1.4, 1.5.1.10 and 1.5.1.11

Why the committee made the recommendations

Evidence from the BATHE trial indicated that emollient bath additives are not clinically or cost effective when used in addition to standard care (which included applying leave-on emollients and washing with emollients or emollient soap substitutes). While evidence suggested that emollient bath additives are not harmful, prescribing a product with no additional benefit places unnecessary burdens on patients and carers, in terms of acquiring and using the product.

Some children with sensory processing disorders are unable to tolerate leave-on emollients that are applied directly to the skin, and emollients applied during bathing or showering may be their only option. The committee discussed making a different recommendation on emollient bath additives for this group, but decided not to because:

- there was no evidence on the effectiveness of emollient bath additives compared with no emollient use
- they can wash with leave-on emollients or emollient soap substitutes, so there is already a way for them to benefit from emollients
- leave-on emollients can also be diluted in hot water and added to bath water, so there is an alternative option available.

The committee recommended personalised advice on washing because children face a variety of issues in controlling their eczema:

- while some children with sensory processing disorders are unable to tolerate leave-on emollients, not all children in this group have the same needs

- for children who cannot tolerate leave-on emollients, and who are using emollient bath additives alone to control their eczema, they and their families would benefit from advice on how to wash with leave-on emollients or emollient soap substitutes
- families who buy emollient bath additives over the counter could save money if they knew they did not need to use these products.

How the recommendations might affect practice

NHS England advised that emollient bath additives should not be prescribed, in their 2019 guidance on items which should not routinely be prescribed in primary care. Despite this, prescribing of emollient bath additives has continued, and there has been geographical variation in prescribing.

The new recommendation supports the NHS England guidance and should further reduce prescribing of emollient bath additives. This would save money for the NHS and reduce geographical variation.

Return to recommendations

The algorithm

The full guideline (pages 50 and 51) contains a care pathway for atopic eczema in children.

Context

Atopic eczema (atopic dermatitis) 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 2 or 3 per month) and remissions. In some cases, it may be continuous. Atopic eczema often has a genetic component that leads to the breakdown of the skin barrier. This makes the skin susceptible to trigger factors, including irritants and allergens, which can make the eczema worse.

Many cases of atopic eczema clear or improve during childhood, whereas others persist into adulthood. Some children who have atopic eczema will go on to develop asthma, allergic rhinitis or food allergy; this sequence of events is sometimes referred to as the 'atopic march'. Although atopic eczema is not always recognised by healthcare professionals as being a serious medical condition, it can have a significant negative impact on quality of life for children and their parents and carers.

This guideline concerns the management of atopic eczema in children from birth up to the age of 12 years. It has been developed with the aim of providing guidance on:

- diagnosis and assessment of the impact of the condition
- management during and between flares
- information and education for children and their parents or carers about the condition.

Finding more information and committee details

To find NICE guidance on related topics, including guidance in development, see the NICE topic page on eczema.

For full details of the evidence and the guideline committee's discussions, see the full guideline and the 2023 evidence review. You can also find information about how the guideline was developed, including details of the committee.

NICE has produced tools and resources to help you put this guideline into practice. For general help and advice on putting our guidelines into practice, see resources to help you put NICE guidance into practice.

Update information

June 2023: We have reviewed the evidence on emollient bath additives and updated our recommendations on emollients. The new recommendation is marked **[2023]**.

Recommendations marked **[2007, amended 2023]** were updated without an evidence review, to remove references to emollient bath additives and make them consistent with the new recommendation.

Recommendations marked **[2007]** last had an evidence review in 2007.

Recommendations marked **[2004]** are from NICE's technology appraisal guidance on frequency of application of topical corticosteroids for atopic eczema and NICE's technology appraisal guidance on tacrolimus and pimecrolimus for atopic eczema.

March 2021: We withdrew some recommendations on managing bacterial infections because they have been replaced by the NICE guideline on secondary bacterial infection of eczema and other common skin conditions.

October 2020: A note about the Medicines and Healthcare products Regulatory Agency (MHRA) warnings on the fire hazard of emollient residue was added to the section on emollients. Footnotes were moved into the main text and tables updated to better meet accessibility requirements.

Minor changes since publication

May 2025: We updated links to relevant technology appraisal guidance in the sections on topical corticosteroids and topical calcineurin inhibitors.

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