CG57

PULSE

Atopic eczema in under 12s: diagnosis and management

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Atopic eczema in under 12s: diagnosis and management

This guideline covers diagnosing and managing atopic eczema in children under 12, including detailed recommendations on treatment and specialist referral, and assessment of the effect of eczema on quality of life as well as its physical severity.

Diagnosis

- 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.
- 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.

Assessing severity, psychological and psychosocial wellbeing and quality of life

- Use a holistic approach when assessing a child's atopic eczema at each consultation (see Table 1, page 3).
- 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.

Discussing related conditions and how atopic eczema may change over time

- 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.

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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
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

Identifying and managing trigger factors

- 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.
- 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.
- 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.
- Consider a diagnosis of allergic contact dermatitis in children with:
  - an exacerbation of previously controlled atopic eczema, or
  - reactions to topical treatments.
- 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.
- 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.
- 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.

- Refer children with atopic eczema for specialist dietary advice if they have followed a cow's milk-free diet for longer than 8 weeks.
- 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.
- Offer diets that include soya protein along with specialist dietary advice for children aged 6 months or over.
- 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.
- 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.

Treatment

Stepped approach to management

- 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.
- 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.
- Start treatment for flares of atopic eczema as soon as signs and symptoms appear, and continue treatment for approximately 48 hours after symptoms subside.

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

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 (available at: gov.uk/drug-safety-update/emollients-new-information-about-risk-of-severe-and-fatal-burns-with-paraffin-containing-and-paraffin-free-emollients).

- 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.
- 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.
- 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.
- If their current emollient causes irritation or is not acceptable, offer a different way to apply it or offer an alternative emollient.

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- 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.
- 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.
- 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.
- Do not offer emollient bath additives to children with atopic eczema.

Topical corticosteroids

- 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.
- 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

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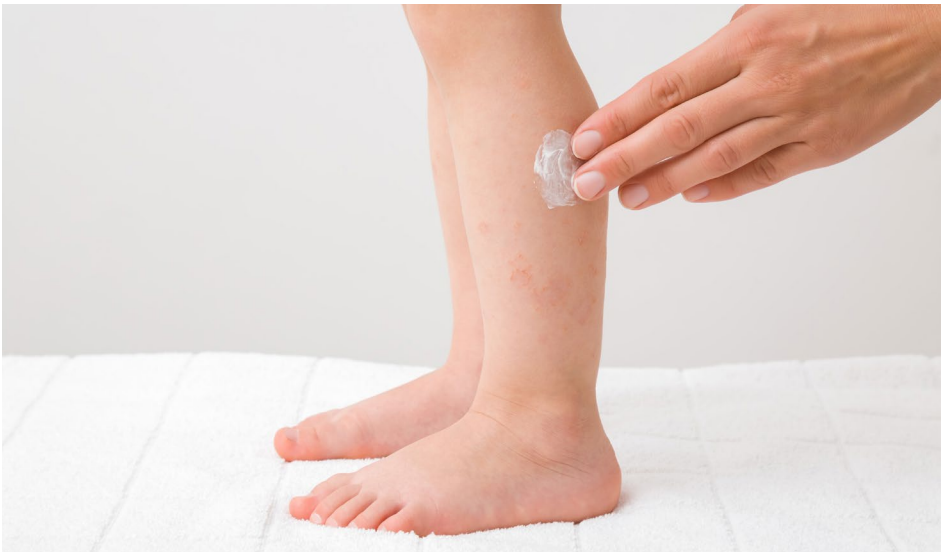

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periods only (7 to 14 days) for flares in vulnerable sites such as axillae and groin
– do not use very potent preparations in children without specialist dermatological advice.
- In line with NICE technology appraisal guidance on topical corticosteroid application, prescribe topical corticosteroids for atopic eczema for application only once or twice daily.
- 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.
- 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.
- Do not use potent topical corticosteroids in children aged under 12 months without specialist dermatological supervision.
- 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.
- 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.

Topical calcineurin inhibitors

- 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.
- 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

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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.

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

Antihistamines

- Do not routinely use oral antihistamines to manage atopic eczema in children.
- 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.
- 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.

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Managing infections

- 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.

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

Complementary therapies, washing and clothing

- Explain to children with atopic eczema and their parents or carers that:
  - the effectiveness and safety of homeopathy, herbal medicine, massage and food supplements have not yet adequately been assessed in clinical trials, and
  - there is no evidence of any benefit in taking fewer baths or showers, or in using ion exchange water softeners or silk clothing.

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- 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 advice to consumers on using herbal medicines available at: webarchive.nationalarchives.gov.uk/20080212021925/http:/www.mhra.gov.uk/Safetyinformation/Generalsafetyinformationandadvice/Adviceandinformationforconsumers/Usingherbalmedicines/index.htm)
  - 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.
- 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.

Education and adherence to therapy

- Provide education to children with atopic eczema and their parents or carers about atopic eczema and its treatment. Provide verbal and written information (such as information from Eczema Care Online, available at eczemacareonline.org.uk/), 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.
- 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.
- Explain to children with atopic eczema and their parents or carers that atopic eczema may temporarily cause the skin to become lighter or darker.

Indications for referral

- Immediately (same day) refer children for specialist dermatological advice if eczema herpeticum is suspected.
- 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.
- 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.
- 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).

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