

Guidelines for the management of atopic eczema

• Primary Care Dermatology Society & British Association of Dermatologists •

- This information is a broad guideline only. Treatment of an individual patient should always be modified according to need and circumstances, and may involve a multidisciplinary approach
- Eczema affects 15–20% of schoolchildren and 2–10% of adults

Diagnostic criteria for atopic eczema

- Atopic eczema is likely if the following criteria are fulfilled (although other conditions may need to be excluded):
 - must have an itchy skin condition plus three or more of the following:
 - past involvement of the skin creases, such as the bends of the elbows or behind the knees
 - personal or immediate family history of asthma or hay fever
 - tendency towards a generally dry skin
 - flexural eczema (visible or from history)
 - onset under the age of 2 years
- If it does not itch it is very unlikely to be eczema
- Scabies is a common differential diagnosis and the recent onset of an itchy rash within a family should alert the physician

Diagnosis and patient assessment

- Enquiry about and discussion of the following:
 - family and personal history of atopy and eczema
 - distribution of disease
 - onset of disease
 - aggravation of eruption related to pets within the household
 - aggravating factors such as exposure to irritants
 - impact on quality of life
 - effect on schoolwork, career, or social life
 - effect on the patient or family

- sleep disturbance due to itching/rubbing
- evidence of bacterial infection, suggested by the presence of crusting or weeping, or the sudden deterioration of eczema
- evidence of herpes simplex infection indicated by grouped vesicles and punched out erosions/lesions
- the patient's or family's expectations from treatment and their understanding of optimal use
- previous treatments
- dietary restrictions tried
- other medications being taken (e.g. steroids for asthma)

- A growth chart should be completed and updated in children with chronic severe eczema

Recommendations for referral to secondary care

- The diagnosis is, or has become, uncertain
- Urgent referral and prompt antiviral treatment if severe infection with herpes simplex (eczema herpeticum) is suspected
- The eczema is severe and has not responded to appropriate therapy in primary care, particularly if excessive amounts of potent topical corticosteroids are being prescribed (or moderately potent corticosteroids in children)
- The eczema becomes infected with bacteria (manifest as weeping, crusting or the development of pustules) and treatment with an oral antibiotic plus a topical corticosteroid has failed
- The eczema is giving rise to severe social or psychological problems; prompts to referral should include sleeplessness and school absenteeism

- Management in primary care has not controlled the eczema satisfactorily
 - failure to improve is probably best based upon a subjective assessment by the child or parent
- The patient or family might benefit from additional advice on application of treatments (e.g. bandaging techniques)
- Contact dermatitis is suspected and confirmation requires patch-testing
- Dietary factors are suspected and dietary control is a possibility (rare)
- The referral letter should include the reason for referral, what it is hoped will be gained from the referral, and what treatments have been tried so far

General principles of primary care management

- Keep the patient/parent informed:
 - explain the condition and its treatment
 - educate the patient on the use of topical treatments with details of application and quantities
 - ideally demonstrate how and when to use
 - back this up with written information and practical advice
- Advise patient to avoid exacerbating factors
 - avoid:
 - anything that is known to increase disease severity, where practicable
 - extremes in temperature
 - irritating clothes containing wool or certain synthetic fibres
 - use of soaps or detergents; replace with emollient substitutes
 - keep nails short
- Advise patient on how to keep skin hydrated:
 - avoid irritants: soaps, shampoos
 - use of baths and bath additives
 - reduce water loss by the liberal use of appropriate emollient

- Treat secondary infection early:
 - use of appropriate topical and oral therapy
- Treat exacerbations:
 - use of appropriate topical corticosteroids on acute basis
- Avoidance of allergens such as house dust mite is difficult, time consuming, costly and of limited benefit
- Food allergy is rarely the cause of the eczema but a dietician may be appropriately involved with a minority of patients for specific dietary manipulation

Use of emollients

- Most patients have associated dry skin and require general use of emollients
- Emollients should be applied as liberally and frequently as possible. They are best applied when the skin is moist but they can and should be applied at other times as well. Ideally, emollients should be applied every 4 hours or at least 3–4 times per day
- Continual treatment with complete emollient therapy (combinations of cream, ointment, bath oil and emollient soap substitute) will help provide maximal effect
- Many patients underestimate the quantity needed and frequency of application to achieve maximal effect
- Emollients should be prescribed in large quantities, with the recommended quantities used in generalised eczema being 600 g/week for an adult and 250 g/week for a child
- Intensive use of emollients will reduce the need for topical steroids. It should be emphasised to all patients that the quantity and frequency of use of emollients should be far greater than that of other therapies they may be given

- A general rule of thumb is that emollient use should exceed steroid use by 10:1 in terms of quantities used for most patients
- An additional approach is to add a surfactant such as lauromacrogols to the emollient to help break the scratch-itch cycle
- The addition of an antiseptic to a bath emollient may reduce bacterial infection and colonisation but should not be used regularly unless the infection is widespread or recurrent to minimise the risk of resistance
- Education on how to use emollients is essential to ensure maximal rehydration of the skin

Principles of treatment with topical steroids

- Topical steroids provide symptomatic relief and are safe in the short term. The potency should be matched to the disease severity and the affected site – weaker corticosteroids should be used on the face and flexures
- As a rough guide, steroid use should be limited to a few days to a week for acute eczema and up to 4–6 weeks to gain initial remission for chronic eczema
- The weakest steroid that controls the disease effectively should be chosen; this may involve either a step-up approach, less potent to more potent, or a step-down approach, more potent to less potent
- In each approach, regular review of steroid use in terms of potency and quantity (especially when using potent steroids) is essential
- Parents/carers need reassurance about the value of topical steroids used appropriately
- Potent steroids should not be used without specialist advice in infants with atopic eczema in primary care
- Rarely, very potent corticosteroids may be indicated in resistant severe

eczema on the hands and feet of adults, again with regular review of use

- Patients using moderate and potent steroids must be kept under review for both local and systemic side-effects, including the use of growth charts for children
- Topical steroids should not be used to provide an emollient effect, and ideally emollients should not be applied shortly after application of a topical steroid (30 minutes is recommended)
- Take care when entering potent steroids into your patient's repeat prescriptions and annotate prescription records with directions for use of potent steroids

Immunomodulatory treatments

- Immunomodulatory agents (e.g. tacrolimus, or pimecrolimus for short-term use) are an alternative to topical steroids. They should only be considered if the patient is intolerant to or has failed with conventional corticosteroid therapy
 - these drugs do not cause skin atrophy, however, they can cause a transient sensation of warmth or burning
 - they should not be used in the context of recurrent herpes simplex infection, and patients should be advised on photoprotection
 - the long-term adverse effects of tacrolimus and pimecrolimus are unknown
 - pimecrolimus by topical application is licensed for mild to moderate atopic eczema for short-term use to treat signs and symptoms and for intermittent use to prevent flares
 - tacrolimus is licensed for topical use in moderate to severe atopic eczema
 - these agents should not usually be considered first-line treatments unless there is a specific reason to avoid or reduce the use of topical corticosteroids
 - it is recommended that treatment with tacrolimus or pimecrolimus be initiated

only by physicians with a special interest and experience in dermatology, after careful discussion with the patient about the potential risks and benefits of all appropriate second-line treatment options

- general practitioners with specific recognition in the field of eczema care, who have been formally recognised through their Trust or hospital appointment, as having a special interest and experience in dermatology, (e.g. GPwSI, clinical assistants and hospital practitioners) may initiate treatment with tacrolimus or pimecrolimus

Bacterial infection

- Bacterial infection is suggested by:
 - crusting, weeping, pustulation and/or surrounding cellulitis with erythema of otherwise normal-looking skin
 - a sudden worsening of the condition
- Oral antibiotics are often necessary in moderate to severe infection or if the infection is recurrent or widespread:
 - a 7-day course should be given
 - flucloxacillin orally is usually most appropriate for treating *Staphylococcus aureus*
 - erythromycin or one of the new macrolides can be used if there is a penicillin allergy or penicillin resistance
 - phenoxymethyl penicillin and flucloxacillin should be given if beta-haemolytic streptococci are isolated or suspected on clinical evaluation
- Steroid-antibiotic combinations are effective in clinical practice although evidence for superiority in efficacy is lacking. They should be used in short courses (typically 1 week) to reduce the risk of drug resistance or skin sensitisation
- Swabs for bacteriology are particularly useful if patients do not respond to

treatment, in order to identify antibiotic resistant strains of *S. aureus* or to detect additional streptococcal infection

- General measures to prevent infection:
 - avoid long-term use of topical antibiotics such as fucidic acid which leads to bacterial resistance
 - avoid contamination of topical agents:
 - tubs of ointment should not be left open
 - simple clean procedures should be used by patients or parents applying the creams – using clean spoons to remove cream from the jar pump dispensers may also be useful

Other treatments

- Antihistamines:
 - sedating antihistamines may be used (ideally intermittently for exacerbations) to reduce itch and scratch; non-sedating antihistamines have very limited benefit
- Third line/secondary care treatments include phototherapy and various immunosuppressive agents

Additional information

- Patient support group: National Eczema Society
Hill House
Highgate Hill
London N19 5NA
☎ – 020 7281 3553
Eczema information line ☎ – 0870 241 3604
- Patient advice leaflets on atopic eczema (nominal price, batches of 260, price £9.95 – no VAT is payable) :
British Association of Dermatologists
4 Fitzroy Square
London
W1T 5HQ

British Association of Dermatologists, <http://www.bad.org.uk/>

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