BMJ

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Sue Lewis-Jones, Moira A Mugglestone and on behalf of the Guideline Development Group

BMJ 2007;335;1263-1264
doi:10.1136/bmj.39405.503773.AD

GUIDELINES

Management of atopic eczema in children aged up to 12 years: summary of NICE guidance

Sue Lewis-Jones,[1] Moira A Mugglestone,[2] on behalf of the Guideline Development Group

[1]Ninewells Hospital and Medical School, Dundee DD1 9SY
[2]National Collaborating Centre for Women's and Children's Health, London W1T 2QA

Correspondence to:
M A Mugglestone
mmugglestone@ncc-wch.org.uk

BMJ 2007;335:1263-4
doi:10.1136/bmj.39405.503773.AD

This is one of a series of *BMJ* summaries of new guidelines, which are based on the best available evidence; they will highlight important recommendations for clinical practice, especially where uncertainty or controversy exists.

Why read this summary?

Atopic eczema affects one in five children in the United Kingdom[1] and accounts for 1 in 30 consultations in community care.[2] Recent data suggest that impaired skin barrier function is a major causative factor.[3 4] There may be considerable physical and emotional morbidity for the child and the parents or carers, particularly if the disease is poorly controlled.[5] Yet most healthcare professionals receive little or no relevant training in dermatology,[6] and lack of knowledge, confusion, and anxiety about many of the available treatments are widespread among parents.[5 7] This article summarises the most recent guidance from the National Institute for Health and Clinical Excellence (NICE) on how to manage atopic eczema in children from birth up to the age of 12 years.[8]

Recommendations

NICE recommendations are based on systematic reviews of the best available evidence. When minimal evidence is available, a range of consensus techniques is used to develop recommendations. In this summary, recommendations derived primarily from consensus techniques are indicated with an asterisk (*).

Diagnosis and assessment

- Diagnose atopic eczema in children according to the criteria in box 1.
- Adopt a holistic approach to assessing a child's atopic eczema*, taking account of the physical severity of the eczema (box 2) and its impact on quality of life (which may range from no impact to severe limitation of everyday activities and psychosocial functioning, with loss of sleep each night (box 3). This assessment should guide treatment decisions; no direct relation necessarily exists between physical severity of atopic eczema and impact on quality of life.

Box 1 Criteria for diagnosing atopic eczema in children

Itching plus three or more of:

- Visible flexural dermatitis involving skin creases (or involvement of cheeks and/or extensor surfaces in children aged up to 18 months)
- History of flexural dermatitis (or involvement of cheeks and/or extensor surfaces in children aged up to 18 months)
- History of dry skin in past 12 months
- History of asthma or allergic rhinitis (or history of atopic disease in a first degree relative in children aged under 4 years)
- Onset under the age of 2 years (but this criterion should be used only for children aged 4 years or more at time of diagnosis)

Box 2 Categorisation of physical severity of atopic eczema

Clear—Normal skin, with no evidence of active atopic eczema

Mild—Areas of dry skin, infrequent itching (with or without small areas of redness)

Moderate—Areas of dry skin, frequent itching, redness (with or without excoriation and localised skin thickening)

Severe—Widespread areas of dry skin, incessant itching, redness (with or without excoriation, extensive skin thickening, bleeding, oozing, cracking, and alteration of pigmentation)

Management

- Identify and manage trigger factors, including irritants (soaps and detergents) and, in some children, skin infections, contact allergens, food allergens, and/or inhalant allergens; refer for specialist advice when necessary
- Emollients are the basis of management and should be used even when the skin is clear.
- Adopt a stepped approach to management (box 4), using emollients with or without treatments such as topical corticosteroids, topical calcineurin inhibitors, and bandaging techniques; step treatment up or down according to clinical response, recognising that atopic eczema typically comprises exacerbations (flares) and remissions.
- Use topical antibiotics, including those combined with topical corticosteroids, for localised infection only and for no longer than two weeks
- Offer non-sedating antihistamines if eczema is severe or if severe itching or urticaria occurs; offer sedating antihistamines to children aged over 6 months during acute flares if sleep disturbance is severe for the child or their parents or carers.
- Recognise the indications for referral for specialist dermatological advice (box 5).*

Education and information

- Educate children and their parents or carers about atopic eczema, including practical

Box 3 Categorisation of impact of atopic eczema on quality of life

None—No impact on quality of life

Mild—Little impact on everyday activities, sleep, and psychosocial wellbeing

Moderate—Moderate impact on everyday activities and psychosocial wellbeing; frequently disturbed sleep

Severe—Severe limitation of everyday activities and psychosocial functioning; loss of sleep every night

demonstrations of the quantities and frequency of treatments to be used.

- Inform them about symptoms and signs of bacterial infection of atopic eczema: weeping, pustules, crusts, eczema failing to respond to treatment, rapidly worsening eczema, fever, and malaise.
- Inform them about how to recognise eczema herpeticum (widespread herpes simplex virus): areas of rapidly worsening, painful eczema; clustered blisters consistent with early stage cold sores; punched-out erosions that are uniform in appearance and may coalesce; possible fever; lethargy; or distress.
- Ask about their use of complementary therapies; explain that the effectiveness and safety of such therapies (homoeopathy, herbal medicine, massage, and food supplements) have not been adequately assessed in clinical studies; and inform them that they should continue to use emollients if they choose to use complementary therapies.

Overcoming barriers

If used correctly, the structured approach recommended in this guidance should allow improved quality of care and more cost effective clinical management of atopic eczema. The approach requires an initial investment in time to assess the child's atopic eczema adequately and discuss parental anxieties about treatments, emphasising that the benefits of topical corticosteroids outweigh possible harms. Written care plans should cover treatment of flares and episodes of infected eczema to educate parents on when topical corticosteroids (and other treatments) are appropriate. This investment should, however, lead to longer term benefits, empowering children with atopic eczema and their parents or carers to take control of management, and potentially reducing the need for frequent monitoring and thus the workload of healthcare professionals.

To support implementation, NICE and the guideline development group have developed a version of the guidance (available from December 2007 at www.nice.org.uk/CG057PublicInfoEnglish) that can be given to children with atopic eczema and their parents or carers).

Box 4 Stepped approach to management of atopic eczema

- Tailor treatment to severity
- Step treatment up or down according to clinical response. Always use emollients, even when the skin is clear, and add other treatments when required, with specialist advice where recommended

Mild atopic eczema—Use mild potency topical corticosteroids

Moderate atopic eczema—Use moderate potency topical corticosteroids, topical calcineurin inhibitors, bandages

Severe atopic eczema—Use potent topical corticosteroids (short periods only except under specialist supervision), topical calcineurin inhibitors, bandages, phototherapy, systemic therapy

Box 5 Indications for referral for specialist dermatological advice*

Immediate (same-day) referral

- If eczema herpeticum is suspected

Urgent referral (seen within two weeks)

- If the atopic eczema is severe and has not responded to optimal topical therapy after 1 week
- If treatment of bacterially infected atopic eczema has failed

Routine (non-urgent) referral

If any of the following apply:

- The diagnosis is or has become uncertain
- Atopic eczema on the face has not responded to appropriate treatment
- The atopic eczema is associated with severe and recurrent infections
- Contact allergic dermatitis is suspected
- The atopic eczema is giving rise to serious social or psychological problems for the child, parent, or carer
- The child, parent, or carer might benefit from specialist advice on treatment application
- Management has not controlled the atopic eczema satisfactorily according to a subjective assessment by the child, parent, or carer

Contributors: SL-J and MAM wrote the initial draft of the article using material produced collectively by the entire guideline development group and contributed to its revision and the final draft, having received feedback from every member of the group. MAM established the group and was project director. SL-J chaired the group. See the box on bmj.com for a list of all members of the development group and their affiliations.
Funding: The National Collaborating Centre for Women's and Children's Health was commissioned and funded by the National Institute for Health and Clinical Excellence to write this summary.
Competing interests: Several members of the Guideline Development Group have declared competing interests, and these are in the full version of this article on bmj.com.
Provenance and peer review: Commissioned; not externally peer reviewed

1 Burr ML, Wat D, Evans C, Dunstan FDJ, Doull IJM, on behalf of the British Thoracic Society Research Committee. Asthma prevalence in 1973, 1988 and 2003. *Thorax* 2006;61:296-9.
2 Kerr OA, Benton EC, Walker JJ Aldrige RD, Tidman MJ. Dermatological workload: primary versus secondary care. *Br J Dermatol* 2007;157(suppl 1):1-9.
3 Palmer CNA, Irvine AD, Terron-Kwiatkowski A, Zhao Y, Liao H, Lee SP, et al. Common loss-of-function variants of the epidermal barrier protein filaggrin are a major predisposing factor for atopic dermatitis. *Nat Genet* 2006;38:441-6.
4 Barker JNWN, Palmer CNA, Zhao Y, Liao H, Hull PR, Lee SP, et al. Null mutations in the filaggrin gene (FLG) determine major susceptibility to early-onset atopic dermatitis that persists into adulthood. *J Invest Dermatol* 2007;127:564-7.
5 Zuberbier T, Orlow SJ, Paller AS, Taïeb A, Allen R, Hermanz-Hermosa JM, et al. Patient perspectives on the management of atopic dermatitis. *J Allergy Clin Immunol* 2006;118:226-32.
6 Kerr OA, Walker J, Boohan M. Importance of training general practitioners in dermatology at both undergraduate and postgraduate level. *Br J Dermatol* 2005;153(suppl 1):1-8.
7 Beattie PE, Lewis-Jones MS. Parental knowledge of topical therapies in the treatment of childhood atopic eczema. *Clin Exp Dermatol* 2003;28:549-53.
8 National Institute for Health and Clinical Excellence. *Atopic eczema in children: management of atopic eczema in children from birth up to the age of 12 years* . London: NICE, 2007. www.nice.org.uk/CG057