PRIMARY HEALTH CARE MANAGEMENT GUIDELINES FOR CHILDHOOD ATOPIC ECZEMA: AGREE II INSTRUMENT

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RESEARCH METHODOLOGY

- PHASE ONE:
  - Qualitative, explorative, descriptive and contextual
  - Single embedded case study
  - Main themes:
    - Childhood atopic eczema has an physical, emotional and social effect
    - Management challenges
    - Recommendation
- PHASE TWO:
  - Development of conceptual framework
- PHASE THREE:
  - Development and validation of primary health care management guidelines for childhood atopic eczema

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PHASE THREE:

- AGREE II INSTRUMENT:
  - Brouwers et al 2010
  - Available from: http://www.agreetrust.org/agree-ii/
  - Aim: development of high quality clinical guidelines

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AGREE II INSTRUMENT

- Six quality domains:
  - scope and purpose
  - stakeholder involvement
  - rigour of development
  - clarity of presentation
  - applicability
  - editorial independence.

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1. SCOPE AND PURPOSE

- Specifically describe:
  - The overall objective(s)
  - The clinical question(s) covered
  - The population (patients, public ect.) to whom it applies.

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2. STAKEHOLDER INVOLVEMENT

- The guideline development group includes individuals from all relevant professional groups.
- The views and preferences of the target population (patients, public ect.) have been sought.
- The target users of the guideline are clearly defined.

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3. RIGOUR OF DEVELOPMENT

- Systematic methods were used to search for evidence.
- The criteria for selecting the evidence are clearly described.
- The strengths and limitations of the body of evidence are clearly described.
- The methods for formulating the recommendations are clearly described.
- The health benefits, side-effects, and risks have been considered in formulating the recommendations.
- There is an explicit link between the recommendations and the supporting evidence.
- The guideline has been externally reviewed by experts prior to its publication.
- A procedure for updating the guideline is provided.

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4. CLARITY OF PRESENTATION

- The recommendations are specific and unambiguous.
- The different options for management of the condition or health issue are clearly presented.
- The key recommendations are easily identifiable.

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5. APPLICABILITY

- The guideline describes facilitators and barriers to its application.
- The guideline provides advice and/or tools on how the recommendations can be put into practice.
- The potential resource implications of applying the recommendations have been considered.
- The guideline presents monitoring and/or auditing criteria.

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6. EDITIORAL INDEPENDANCE

- The views of the funding body have not influenced the content of the guideline.

- Competing interests of guideline development group members have been recorded and addressed.

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RATING

- **Rating each item of the clinical guideline presented under: Clarity of presentation**

After reading each item of the clinical guideline or sub-section thereof, use the 7-point scale to respond to the guideline.
Please mark with an “x” the relevant column according to:

Guideline	Evidence level	References	7-point scale	Comments

1	Strongly disagree
2	Disagree
3	Slightly disagree
4	Neither disagree nor agree
5	Slightly agree
6	Agree
7	Strongly agree

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OVERALL ASSESSMENT OF GUIDELINES:

Do you want to recommend the use of the guidelines:

YES	**65.4%**
YES, WITH MODIFICATION	34.6%
NO	0

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RESULTS VALIDATION PROCESS

Domain	Score	Comments
1. Scope and purpose	91.6%	
2. Stakeholder involvement	91.8%	The multidisciplinary team could be more inclusive and specifically mentioned
3. Rigor of development	93.6%	Nil
4. Clarity of presentation	95%	Very detailed
5. Applicability	93.2%	Include general practitioners in training on childhood atopic eczema
6. Editorial independence	93.9%	

12 GUIDELINES

1. Assessment and diagnosis
2. Management
3. Complete emollient therapy
4. Topical corticosteroid therapy (TCS)
5. Antibiotic treatment
6. Antihistamine treatment
7. Health education:
    1. Dietary factors
    2. Environmental factors
    3. Treatment applications and compliance
8. Psychotherapy
9. Support groups
10. Alternative treatment
11. Dietary supplements
12. Referral to multidisciplinary team

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GUIDELINE 1

Assessment and diagnosis

- Perform a thorough **assessment** through a detailed history and physical examination in order to diagnose the child and determine the **severity, psychosocial well-being and quality of life** of the child and parent, the presence of **complications** and the presence of **co-morbidities** such as rhinitis, rhino-conjunctivitis, asthma, depression.
- Use clinical knowledge to diagnose AE (4,D)
- Assess the **severity** of the AE using the percentage of body surface involved, the acute, sub-acute or chronic changes and the quality of life, and grade the severity as mild, moderate or severe (see Table 4) (4,D)
- **Monitoring of growth** (weight and height) and refer if there is failure to thrive according to the percentile charts (2+, C)
- **IgE levels are not indicated for the primary health care level**; if indicated, it could form part of identifying allergens and management of the patient at the next level of care (2+, C)

TABLE: ASSESSMENT OF SEVERITY OF ATOPIC ECZEMA

Mild:

<5% body surface involved

No acute changes

No significant impact on quality of life

Moderate:

5 - 30% body surface involved

Mild dermatitis with acute changes

Mild dermatitis with significant impact on quality of life

Severe:

>30% body surface involved

Moderate dermatitis with acute changes

Moderate dermatitis with significant impact on quality of life

GUIDELINE 2

Management

A step wise approach for the management of childhood atopic eczema, including pharmacological and non-pharmacological treatment and indications for referral should be followed as reflected in table 5 and table 7

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Step 1	**Mild**	• **Complete emollient therapy** • **1% hydrocortisone topical treatment once or twice daily for 7-14 days** • **Once remission is achieved, continue with complete emollient therapy and non-drug therapy and if necessary with 'weekend' topical corticosteroid therapy** • **If an initial burst of treatment with a moderate strength TCS is needed, the child must be referred to the clinic doctor to initiate the treatment** • **When triggers and allergens are strongly suspected, give relevant health education** • **Give relevant health education on skin care and compliance**

Step 2	Moderate	• Complete emollient therapy • Moderate strength topical corticosteroid once or twice daily for 7 – 14 days – initiated by the clinic doctor • If remission achieved, continue with maintenance therapy of 1% hydrocortisone topical treatment twice weekly (weekend) together with complete emollient therapy • If no remission achieved, refer • When triggers and allergens are strongly suspected, give relevant health education • Relevant health education on skin care and compliance

Step 3	**Severe**	• **Complete emollient therapy** • **Moderate strength topical corticosteroid once or twice daily for 7 – 14 days – initiated by the clinic doctor** • **When triggers and allergens are strongly suspected, give relevant health education** • **Relevant health education on skin care and compliance** **and** • **Referral to dermatologist and** • **Referral to psychologist/social worker**

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Step 4	Co-morbidities	Treat according to relevant treatment protocols and/or refer

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GUIDELINE 3

Complete emollient therapy:

- **Prescribe the complete emollient ointment (not aqueous cream) as the first line of treatment for all children with atopic eczema (1++, A)**
- **Provide sufficient quantities of emollient, that is at least 250g/week, depending on the severity and the size of the child. Bigger children could need more (adults should get 500g/week) (4, D)**

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- Explain and demonstrate how to apply the emollient and how often: (4, D)
  - Emollients should be used in larger amounts and more often than the other topical treatments
  - Apply the emollient at least twice daily over the whole body, and more often if needed, even if there are no symptoms
  - Shower or bath the child after swimming
  - The child should preferably bath once a day in warm water for a few minutes to hydrate the skin
  - After bathing or swimming the skin must be pat dried and not rubbed

- Apply the emollient within three minutes after drying the child. Smooth it in as this improves the absorption and reduces the risk of developing occlusion folliculitis
- Use the emollient as a stay-on treatment as well as a soap and shampoo
- Do not wash the hair while bathing
- Emollient treatment often comes in a pot. To prevent bacterial contamination, the required amount must be scooped out with a clean spoon. Fingers should not come in contact with the content

GUIDELINE 4

Topical corticosteroid (TCS):

- **Mild and moderate atopic eczema can be treated with topical 1% hydrocortisone once or twice daily for 7-14 days. If an initial burst of treatment with a moderate strength TCS is needed, the child must be referred to the clinic doctor to initiate the treatment (1++, A)**
- **Complete emollient therapy must be continued together with TCS. Once remission have been achieved, complete emollient therapy must still be continued (1+, A)**
- **Once remission have been achieved, the child with moderate atopic eczema can be put on a twice weekly 'weekend' TCS schedule, together with complete emollient therapy. (Some children after remission) could be managed with complete emollient therapy only (1++, A)**
- **The Finger-tip unit help to apply the correct amount of TCS (See table 6) (1++, A)**
- **Some local side-effects could occur with the use of TCS, but are limited if used correctly. Systemic side-effects are rare. Patient/parent education on the correct**

Table 6 Finger-tip units to apply TCS (SIGN, 2011)

	3-6 months	1-2 year old	3-5 years	6-10years	11 years and older (adult scale)
Face and neck	1	1.5	1.5	2	2.5
Torso and abdomen	1	2	3	3.5	7
Back and buttocks	1.5	3	3.5	5	7
Entire arm and hand	1	1.5	2	2.5	4
Entire leg and foot	1.5	2	3	4.5	8
A hand and fingers (front and back)	-	-	-	-	1

GUIDELINE 5

Antibiotic treatment:

- **In a clinical S. aureus infection according to national standards (EDL) (1++, A)**
- **If there is no sufficient response after the treatment course or infections are recurrent, refer the child to the clinic doctor, dermatologist or paediatrician (4, D)**

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GUIDELINE 6

Antihistamine treatment:

- **If the child has sleep difficulty due to pruritus, a sedative antihistamine such as chlorpheniramine can be prescribed before bedtime (1+, A)**

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GUIDELINE 7

Health education:

Parent education regarding treatment and compliance, dietary factors, environmental factors and irritants, can help to control the atopic eczema (1++, A)

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GUIDELINE 7.1 Dietary factors:

- **Do not routinely recommend diet exclusion** for pregnant mother and lactating mothers as a preventative measure for the development of allergy in the infant (1++, A)
- Although evidence for the relationship between breastfeeding and atopic eczema is controversial, **exclusive breastfeeding** for 4-6 months is recommended due to the overall benefits thereof (1++, A)
- Introduction of protein solids between 4-6 months of age is recommended. **Delaying the introduction of solids after 6 months of age can lead to more allergy development (2++, B)**
- Proven cow's milk can be replaced by extensively hydrolysed formula or amino-acid based formula. If cow's milk allergy is proven, the child should be referred to a dietician (1++, A)
- **Routine diet exclusion is not recommended** without confirmed food allergy. Food allergy testing should be done by a trained specialist. If the history strongly suggests a food allergy, refer the child according to protocol (1++, A)

GUIDELINE 7.2

Environmental factors:

- **Cleansing of an infant:**
  - **In cleaning an infant, it is recommended to use a non-perfumed emollient cleanser, which does not alter the pH of the skin surface, together with water. This will clean and hydrate the skin and keep the skin barrier intact (2++, B)**
- **House dust mite:**
  - **A combination of reduction strategies to minimize the effect of house dust mite will give better clinical results (damp dusting, vacuuming, steam vapor, mattress covers and ventilation). Adjust the health education to the need and situation of the child and parent (2++, B)**

- Irritants:
  - If an irritant, such as biological washing powder, fabric softener or clothing is suspected to have an effect on the skin of the child, the parent can be advised to avoid it. Wool and nylon clothes are most frequently the irritant type of clothes. If fabric softener is used, it should be rinsed out thoroughly (1++, A)
- Pet exposure:
  - Do not routinely advise against having a pet. However, if the presence of a pet aggravates the atopic eczema, give relevant health education (1++, A)
- Exposure to tobacco smoke:
  - Prevent the child from being exposed to tobacco smoke as this contributes to the atopic eczema (2++, B)

GUIDELINE 7.3

Topical treatment application and compliance to treatment:

- **Educate the parent on how to apply the topical treatment, the amount that needs to be applied and the importance of compliance to complete emollient therapy and topical corticosteroid therapy (1++, A)**

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GUIDELINE 8

Psychotherapy

- Psychotherapy, together with pharmacological and non-pharmacological treatment are all important in the management of childhood atopic eczema (1++, A)

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GUIDELINE 9

Support groups:

The primary health care team (PHC nurses, community health workers, health promoters) in the facility can start a support group for parents with children suffering from atopic eczema (2+, C)

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GUIDELINE 10

Alternative treatment:

No specific recommendation can be made on the use of alternative treatment for atopic eczema, as the results of studies are not conclusive (1++, A)

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GUIDELINE 11

Dietary supplements:

There are conflicting results in the literature on the role of dietary supplementation, therefore no routine vitamin or dietary supplementation is recommended (1++, A).

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GUIDELINE 12

Refer the child with atopic eczema or parent to other members of the multidisciplinary team (Table 7)

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Table 7: Indications for referral

Immediate (same-day) referral to dermatologist or specialist:	• **If eczema herpeticum is present**
Urgent referral (seen within two weeks)	• Dermatologist/specialist: • If the atopic eczema is severe, give optimal treatment and refer at the same visit • If treatment of bacterially infected atopic eczema has failed • If child had an anaphylaxis, due to a co-morbidity, refer according to the relevant protocol • Psychologist/social worker: • If the quality of life of the child and/or the parent is seriously impaired and leading to serious social and psychological problem

Routine (non-urgent) referral:	• **Dermatologist/specialist:** • **The diagnosis is or has become uncertain.** • **Atopic eczema on the face has not responded to appropriate treatment.** • **Moderate atopic eczema did not respond to moderate topical corticosteroid therapy** • **For IgE testing to identify allergens (environmental and food), especially in moderate and sever atopic eczema, not responding satisfactory to baseline treatment, or where food allergy is strongly suspected** • **The child, parent, or carer might benefit from specialist advice on treatment** • **Management has not controlled the atopic eczema satisfactorily according to a subjective assessment by the parent and child** • **Psychologist/social worker:** • **The atopic eczema is giving rise to some social or psychological problems for the child and/or parent**

Pilot study

Post doctoral

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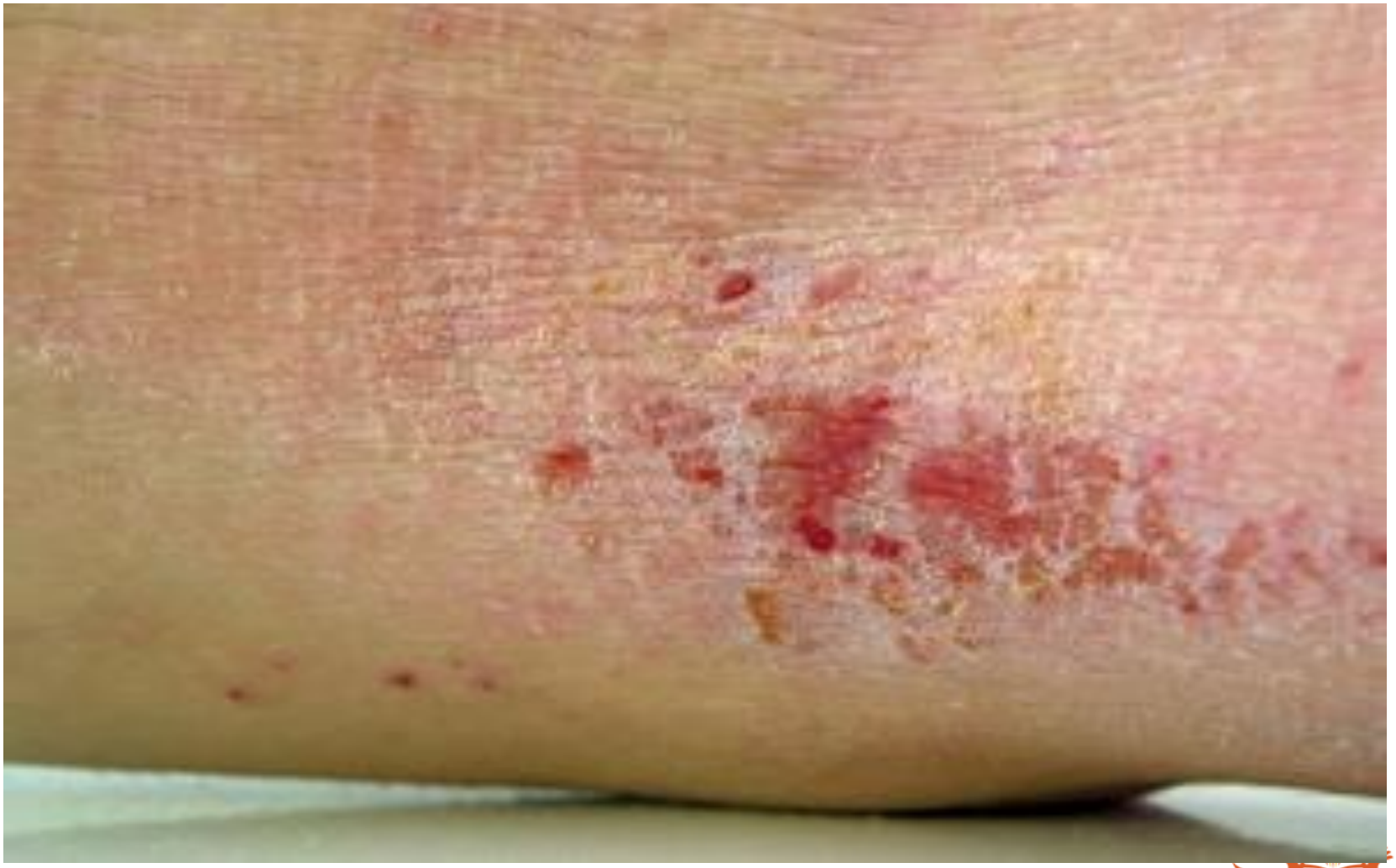
THE END



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