NHS
South West London

Management of atopic eczema in infants, children and young people (up to 18 years of age)

This guideline is aimed at clinicians in primary care across NHS SWL, with guidance on how to manage atopic eczema in infants, children and young people.

History and examination

Focused history

- Age of onset
- Triggers identified by family/carer
- Family history of atopy
- Quality of life assessment (sleep disturbance/school attendance/poor concentration)

Examine

- Distribution, severity, morphology – dry skin, redness, excoriation, lichenification, co-existing infection.
- Images of patients with atopic eczema can be found on The Primary Care Dermatology Society website.

Severe eczema

- Widespread areas of dry skin, incessant itching, redness (with or without excoriation, extensive skin thickening, bleeding, oozing, cracking, and alteration of pigmentation).
- Severe limitation of everyday activities and psychosocial functioning, nightly loss of sleep.

Eczema herpeticum

- Areas of rapidly expanding painful eczema.
- Clusters of monomorphic punched out blisters.
- Punched out erosion (1 to 3mm) that may coalesce to form larger eroded crusted areas.
- Possible fever, lethargy, oral lesions, sore throat, and distress.

Secondary bacterial infection

- Consider in areas of erythema or swelling and eroded crusted lesions.
- Fissuring may be associated.
- May be pustules/folliculitis.
- Usually Staphylococcus or Streptococcus, always take a swab before initiating oral antibiotics.

Exclude

- Symptoms or signs suggestive of eczema herpeticum (acute tender punched out lesions). Contact Dermatology on call / Emergency Department for advice.
- Symptoms or signs of secondary bacterial infection. Consider sending bacterial swab and consider oral antibiotics (Flucloxacillin first line if no penicillin allergy, if not suitable refer to SWL Antimicrobial Guidelines.

General management

- **Seek Advice and Guidance via the electronic Referral Service (eRS) for the management of infants under 1 year of age**
- Ensure liberal supply of emollient of preference (250 to 500g every week). The choice of emollient should be according to patient preference, see SWL Joint Medicines Formulary.
- In general, use corticosteroid ointments rather than creams. Advise patients to use enough to make the skin look shiny or use fingertip units as above.
- Emollients should be applied in a downward direction following the direction of hair growth with clean hands.
- Emollient sprays can be useful for children during school hours and before swimming but be careful with slipping.
- Avoid irritants (e.g., soaps / sodium lauryl sulphate / bubble baths) and prescribe a soap substitute to wash with - see SWL Joint Medicines Formulary.
- Reduce *S. aureus* load (e.g., Dermol® 500 lotion, only if recurrent infections. **Stop use once infection resolves.**
- Oral antihistamines should not be used routinely in the management of atopic eczema in children.
- Consider a diagnosis of food allergy and referral to local Allergy Services for testing and local dietetic input if:
- Reacted previously to a food with immediate symptoms,
- 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.

Management of acute flares

Mild eczema

For acute flares apply a mild potency topical corticosteroid (e.g., hydrocortisone 1%) once daily for 2 to 4 weeks.
If frequent flares:

- Consider maintenance treatment with mild potency topical corticosteroid once daily on two consecutive days each week, e.g., weekends over areas affected by recurrent flares for up to 4 months.
- Restart daily regime for 2 weeks if patient experiences flare-up during weekend maintenance regime.

Moderate eczema

For acute flares apply a moderate potency topical corticosteroid (e.g., clobetasone) once daily for 2 to 4 weeks.
If frequent flares:

- Consider maintenance treatment with moderate potency topical corticosteroid once daily on two consecutive days each week, e.g., weekends over areas affected by recurrent flares for up to 4 months.
- Restart daily regime for 2 weeks if patient experiences flare-up during weekend maintenance regime.

If no response:

- Use Advice and Guidance via eRS to initiate treatment.
- Consider topical calcineurin inhibitors (see below) twice daily for up to 3 weeks, then reduce to once daily until clear.

Severe eczema

For acute flares apply a potent topical corticosteroid (e.g., clobetasone butyrate 0.05% for face and neck, mometasone furoate 0.1% or betamethasone valerate 0.1% for the body) once daily for 2 weeks.
If frequent flares:

- Consider maintenance treatment with potent topical corticosteroid once daily on two consecutive days each week, e.g., weekends over areas affected by recurrent flares for up to 4 months.
- Restart daily regime for 2 weeks if patient experiences flare-up during weekend maintenance regime.

If no response:

- Consider topical calcineurin inhibitors (see below) twice daily for up to 3 weeks, then reduce to once daily until clear.
- Note: refer to manufacturers licensed indications.

Refer to secondary care via eRS if there is no response after 12 weeks of treatment as recommended above.

General considerations for use of topical corticosteroids and topical calcineurin inhibitors

Topical corticosteroids

- Use mild potency corticosteroids for the face and neck apart from short term use, e.g., 5 days of moderate potency, for example clobetasone butyrate 0.05% for severe flares.
- Use moderate potency topical corticosteroids for short periods e.g., 14 days for vulnerable sites such as neck, groin, and axillae.

Topical calcineurin inhibitors

- Topical calcineurin inhibitors e.g., tacrolimus (Protopic®) 0.03% ointment is licensed for 2 years and over and pimecrolimus (Elidel®) 1% cream is licensed for 3 months of age and older in moderately severe eczema. Topical tacrolimus (Protopic®) 0.1% ointment is licensed from 16 years of age and above.
- Advise cautious use at initiation due to known irritation (‘stinging-like’), should lessen with recurrent use.
- Increase the surface area as tolerated.
- Avoid use prior to exposure to sunlight.
- Tacrolimus ointment / pimecrolimus cream both have an AMBER 1 RAG rating on the SWL Joint Medicines Formulary (AMBER 1: Recommendation by a specialist, but is considered non urgent and therefore could be started in primary care at the discretion of the GP after the GP’s consideration).

How much topical corticosteroid to apply and prescribe?

- Application using fingertip guide
    - Fingertip Unit (FTU) is the amount of cream or ointment that just covers the end of one adult finger from the tip to the crease of the first joint when squeezed from an ordinary tube nozzle. One FTU is enough to cover an area of skin the size of two adult hands with the fingers together (roughly 0.4 to 0.5g) (Topical Steroids | Eczema Treatment | Eczema.org).The National Eczema society have produced a factsheet on topical steroids, where a pictorial reference can be seen on page 6.

- Prescribing
    - Depending on the age of the child and the body area covered, 15 to 30g of topical corticosteroid should be sufficient for 2 to 4 weeks treatment.

Number of fingertip unit by age for different parts of a child's body by age

3 to 12 months

- 1 FTU
    - Face and neck
    - One arm and hand
    - Trunk (front)
- 1.5 FTU
    - One leg and foot
    - Trunk (back including buttocks)

1 to 2 years

- 1.5 FTU
    - Face and neck
    - One arm and hand
- 2 FTU
    - One leg and foot
    - Trunk (front)
- 3 FTU
    - Trunk (back including buttocks)

3 to 5 years

- 1.5 FTU
    - Face and neck
- 2 FTU
    - One arm and hand
    - One leg and foot
- 3 FTU
    - Trunk (front)
- 3.5 FTU
    - Trunk (back including buttocks)

6 to 10 years

- 2 FTU
    - Face and neck
- 2.5 FTU
    - One arm and hand
- 3.5 FTU
    - Trunk (front)
- 4.5 FTU
    - One leg and foot
- 5 FTU
    - Trunk (back including buttocks)

Over 10 years

- 1 FU
    - One hand
- 2 FU
    - One foot

- 2.5 FTU
  - Face and neck
- 3 FTU
  - One arm
- 6 FTU
  - One leg
- 7 FTU
  - Trunk (front)
  - Trunk (back including buttocks)

Warning: Risk of severe and fatal burns with paraffin-containing and paraffin-free emollients

The MHRA has warned of the risk of severe and fatal burns with all emollients, whether they contain paraffin or not. Advise patients who use these products not to smoke or go near naked flames (or be near people who are smoking or using naked flames), and warn about the easy ignition of clothing, bedding, dressings, and other fabric that have dried residue of an emollient product on them. Patients' clothing and bedding should be changed regularly, preferably daily because emollients soak into fabric and can become a fire hazard. (See MHRA updates December 2018 and August 2020).

To the best of our knowledge, the information provided in this guideline is accurate and reliable as available at the time of issue. Always consult the Summary of Product Characteristics for full prescribing information.

Reference/resources

- BNF (British National Formulary) | NICE
- Eczema - atopic | Health topics A to Z | CKS | NICE
- Atopic eczema in under 12s: diagnosis and management (nice.org.uk)
- British Association of Dermatologists (bad.org.uk)
- Emollients: new information about risk of severe and fatal burns with paraffin-containing and paraffin-free emollients
- Emollients and risk of severe and fatal burns: new resources available

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