Clinical Design & Innovation
Person-centred, co-ordinated care

PAEDIATRICS

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Atopic Dermatitis/Eczema

BACKGROUND

- Chronic, pruritic, inflammatory skin disease
- Affects 1 in 5 children, majority present in early childhood
- Many clear by late childhood but ~15% persist
- Can be associated with development of other atopic diseases: allergic rhinitis, asthma & food allergy

PATHOPHYSIOLOGY

- Epidermal **barrier dysfunction** transepidermal water loss & susceptibility to irritants/allergens/ infection
  immune reaction **inflammation**
- Itch-scratch cycle

BACTERIAL INFECTION

- Mainly S. aureus or Group A Strep
- Weeping, crusting, erythematous or impetiginous lesions
- Worsening eczema failing to respond to therapy
- Look for systemic signs & symptoms
- Treat with topical or oral antibiotics IV if unwell
- Consider bleach baths if recurrent

ECZEMA HERPETICUM

- Rapidly worsening eczema
- Clusters of monomorphic vesicles/ punched-out erosions on an erythematous base
- Look for systemic signs & symptoms
- **Emergency** - treat with IV aciclovir and refer to dermatology

ECZEMA & YEAST/FUNGI

- Mainly Malassezia, Candida, Tinea
- Consider in babies and teenagers, typical appearance is a fine scale affecting the scalp, face, neck and other skin folds not responding to topical steroid treatment
- Treat with combined topical antifungal & steroid preparation

HISTORY

- Site (on body)
- Onset (age)
- Character (itchy? Appearance? Dry? etc)
- Response (to prior treatments)
- Associations (personal & family history of atopy)
- Timing (constant? episodic? worsening?)
- Exacerbating factors/Triggers
- Severity (impact on child & family – bio-psycho-social e.g. sleep + schooling

EXAMINATION

- <2 years old: cheeks, extensor surfaces, scalp, trunk. Sparing of nappy area
- >2 years old: flexor & volar surfaces
- Dry skin, pruritus, and erythematous, scaly lesions
- In darker skin erythema can be more subtle & eczema is often papular/ follicular
- Excoriation & lichenification
- Post-inflammatory hyper-/ hypopigmentation

INVESTIGATIONS

- Skin swabs if suspected or recurrent infection
- Allergy testing usually not required Unless history suggestive of food allergy

TREATMENT

- See right column

REFERRAL

- Emergency if clinical suspicion of eczema herpeticum or other severe infection
- Diagnostic uncertainty
- Poorly controlled with topical treatments – may need phototherapy or systemic therapy
- Significant social or psychological impact e.g school performance, inability to sleep
- Faltering growth

MANAGEMENT

- Caregiver education is vital
- Treatment is time-consuming & labour-intensive for families

CONSERVATIVE MEASURES

- Avoidance of triggers & irritants
- Daily lukewarm 5 min baths with soap substitute can be useful
- Avoid fragranced products, soap, bio-detergents
- Keep nails short/mittens, bedroom cool, long cotton pajamas

TREAT BARRIER DYSFUNCTION: EMOLLIENTS

- Liberal, frequent use of emollient all over, using downwards strokes at a different time to topical steroids
- Whichever emollient the child will use is the best one
- Can use greasier emollients at night

TREAT INFLAMMATION: TOPICAL STEROIDS

- Once a day use of appropriate potency steroid on areas of active eczema until clear and wean slowly
- Ointments preferable to creams
- Use mild potency on the face and groin
- Apply enough so that the skin 'glistens' or use fingertip units
- Poor adherence often due to steroid phobia

ECZEMA & WEANING

- Infants with mild eczema: early introduction of allergenic food advised once skin is more settled
- Infants with severe eczema: as above but consider need for allergy testing prior to introduction of peanut

CONSIDER

- TOPICAL CALCINEURIN INHIBITORS: as a steroid sparing agent on face/ axilla/groin in children >2 years old
- DRESSINGS: occlusive dressings, medicated bandages are an option but **not on infected skin**

Ref: Atopic Dermatitis/Eczema 10/23. CDI/0062/2.0/2023

REFERENCES:
1. NICE guidelines 'Atopic Eczema in under 12s' 2021
2. RCH Guidelines 'Eczema Treatment' 2021
3. SIGN Guidelines 'Management of Atopic Eczema in primary care' 2011
4. Ifan.ie