Eczema is a chronic, relapsing, itchy, inflammation of the skin affecting approximately 20% of New Zealand children.

Skin with eczema has altered integrity and an increased risk of infection with bacteria and viruses.

General management principles include: daily moisturising, appropriate use of topical steroids, avoidance of possible irritants and education about signs of infection to ensure prompt treatment. Most children with eczema can be managed with topical treatment in primary care.

**USE SOAP SUBSTITUTES**

Soaps can be drying and irritating to the skin so ‘soap-free’ washes should be used. Lukewarm baths of 10-15 minutes are best.

**Antiseptic washes**

To reduce staphylococcus colonisation and reduce eczema severity, antiseptic baths can be used 2-3 times per week. Prepare by adding 1 mL of bleach (4.2% Value Extra Strength Bleach, not Janola) to 1 Litre of bath water - approximately 80 mL of this bleach to 10 cm deep, regular sized bath. Ideally the child should stay in the bath for 10-15 minutes and then rinse with fresh water.

**EMPHASISE THAT EMOLLIENTS ARE ESSENTIAL**

Emollients are the mainstay of therapy but are often underused. They should be applied even when eczema is well controlled, ideally, several times a day. To encourage daily moisturising, bathing and washing, approximately 250-500 g of emollient should be prescribed each week. Ointments are preferred for dry skin, creams for flexures, face and exudative skin and lotions are useful over hairy areas.

Ointment-based emollients are best but they are very greasy. Cream-based alternative may be used (eg Sorbolene®) although they are slightly less effective. Oily creams such as HealthE fatty cream® are usually acceptable.

Regular aqueous cream is no longer recommended as a leave-on emollient.

**USE CORTICOSTEROIDS APPROPRIATELY**

Most parents worry about steroid-related adverse effects. Reassure them the benefit will outweigh the harm. Facial and flexural eczema should be treated with a low potency topical steroid in all age groups. Moderate potency topical steroids can be used as a second line treatment for short periods of less than 2 weeks.

Infants under one year with eczema on the body (trunk, arms and legs), can usually be managed with a low or occasionally, moderate potency topical steroid. Pre-schoolers may require a moderate or potent topical steroid. Improvement typically occurs within 1-2 weeks. Short bursts of more potent steroids are more effective than long-term continuous use of lower potency agents. Once daily dosing of topical steroids may be as effective as twice daily.

Advise to apply to all areas with active eczema; when the skin is no longer red and itchy, the steroid cream may be stopped, but continue with emollients.

If there is no benefit within 1-2 weeks, the need for a more potent topical steroid should be considered or review diagnosis. Consider referral for specialist advice if there is recurrent treatment failure.
Table 2 Topical corticosteroids

<table>
<thead>
<tr>
<th>POTENCY</th>
<th>SUBSIDISED EXAMPLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild</td>
<td>Hydrocortisone 1%</td>
</tr>
<tr>
<td></td>
<td>Hydrocortisone cream 1%</td>
</tr>
<tr>
<td>Moderate (25 x hydrocortisone 1%)</td>
<td>Aristocort cream/ointment*</td>
</tr>
<tr>
<td>Triamcinolone acetonide (0.02%)</td>
<td>Locoid Lipocream/ointment/ lotion* Crelo* (milky emulsion)</td>
</tr>
<tr>
<td>Potent (50-100 x hydrocortisone 1%)</td>
<td>Betnovate Lotion*</td>
</tr>
<tr>
<td>Betamethasone valerate (0.1%)</td>
<td>Beta cream/ointment/ application* Betrovate Ointment*</td>
</tr>
<tr>
<td>Hydrocortisone 1.7-butyr at (0.1%)</td>
<td>Elocon cream/ointment/ ointment*</td>
</tr>
<tr>
<td>Mometasone furoate (0.1%)</td>
<td>Advantan cream/ointment*</td>
</tr>
<tr>
<td>Methyprednisolone aceponate (0.1%)</td>
<td>Locoid Lipocream/ointment/ lotion*</td>
</tr>
</tbody>
</table>

Note: Very potent steroids such as Dermol® (clobetasol propionate 0.05%) should not be used for childhood eczema.

Make sure adequate amounts of topical steroid are used: suboptimal use early on can lead to poor control. Use the fingertip unit (FTU). One FTU is the amount of cream that will cover an adult index finger from the tip of the metacarpophalangeal joint: it is approximately 0.5g. Always give instruction on which areas to avoid (e.g. the face). Encourage the continued use of emollients during acute flare-ups.

A useful resource is available on the Starship website.

IDENTIFY UNDERLYING TRIGGERS IF POSSIBLE

Avoid any likely irritants eg soaps, detergents, chemicals, abrasive clothing and extremes of temperature.
- Wash new clothes before use
- Use mild liquid detergents and a second rinse cycle
- Shower after swimming in chlorinated pools and apply emollients
- Dress children in loose cotton clothing, avoiding wool and synthetics next to the skin
- Always choose fragrance-free hypoallergenic products
- Avoid topical products containing alcohol or astringents
- Test a new sunscreen or new skin product on a small patch of skin, before application over all skin. (covering up is the best protection while out in the sun)

Frequent follow-up is needed early in the course to assess response to therapy and compliance.

REFER IF NECESSARY

If the condition is severe, involves eyelids/hands or is refractory to first-line treatments, consider further assessment by either a nurse specialist or paediatrician, or consultation with a dermatologist. The following conditions should be referred:
- Erythroderma or extensive exfoliation
- Serious infectious complications
- Ocular complications
- Eczema requiring hospitalisation
- Eczema causing persistent loss of sleep, school absenteeism or psychosocial effects
- Persistent topical steroids

Eczema has multiple triggers. Referral for assessment by a paediatrician, paediatric immunologist or dermatologist should be considered if food is thought to be a significant trigger. Keep in mind that many children ‘outgrow’ eczema but for 20-40% of them it can continue into adulthood.

Key references