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; small amounts of bath oils may be used to increase hydration. Note: bath oils can make the bath very slippery.

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 1Litre of bath water - approximately 80mL of this bleach to 10cm deep, regular sized bath. Ideally the child should stay in the bath for 5-10 minutes and then rinse with fresh water. Children should be supervised to avoid ingestion of bath water.

**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.

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Table 1 Emollients

<table>
<thead>
<tr>
<th>RECOMMENDED EMOLLIENTS</th>
<th>BRAND NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cetomacrogol aqueous cream + glycerine</td>
<td>Sorbolene with Glycerin® (Pharmacy Health)</td>
</tr>
<tr>
<td>Cetostearyl alcohol + paraffin liquid + paraffin soft white</td>
<td>O/W Fatty Emulsion (Boucher &amp; Muir)</td>
</tr>
<tr>
<td>Paraffin liquid + paraffin soft white + wax-emulsifying</td>
<td>Emulsifying Ointment BP (HealthE)</td>
</tr>
<tr>
<td>Paraffin liquid + paraffin soft white</td>
<td>White soft/Liquid Paraffin (HealthE)</td>
</tr>
<tr>
<td>Cetomacrogol wax-emulsifying + paraffin liquid + paraffin soft white + water purified</td>
<td>Non-ionic (HealthE)</td>
</tr>
</tbody>
</table>

This is not an exhaustive list and funded products may CHANGE: please refer to the on-line Pharmac schedule for the most up-to-date information.

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**ECZEMA - SAFE PRESCRIBING - A TOPICAL ISSUE**

USE SOAP SUBSTITUTES

EMOLLIENTS ARE ESSENTIAL

USE CORTICOSTEROIDS APPROPRIATELY

IDENTIFY AND MANAGE UNDERLYING TRIGGERS IF POSSIBLE

REFER IF NECESSARY
Table 2 Topical corticosteroids

<table>
<thead>
<tr>
<th>POTENCY</th>
<th>SUBSIDISED EXAMPLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild</td>
<td>Hydrocortisone 1% Hydrocortisone cream 1%</td>
</tr>
<tr>
<td>Moderate (25 x hydrocortisone 1%)</td>
<td>Triamcinolone acetonide (0.02%) Aristocort cream/lotion*</td>
</tr>
<tr>
<td>Potent (50-100 x hydrocortisone 1%)</td>
<td>Betamethasone valerate (0.1%) Beta cream/ointment/application* Betrovate Lotion*</td>
</tr>
<tr>
<td></td>
<td>Hydrocortisone 17-butyrate (0.1%) Locoid Lipocream/ointment/lotion* Crelo* (milky emulsion)</td>
</tr>
<tr>
<td></td>
<td>Mometasone furoate (0.1%) Elocon cream/lotion/ointment* m-Mometasone cream/oointment*</td>
</tr>
<tr>
<td></td>
<td>Methyprednisolone aceponate (0.1%) Advantan cream/oointment*</td>
</tr>
<tr>
<td></td>
<td>Betamethasone dipropionate (0.05%) Dipsorone*</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 (eg the face). Encourage the continued use of emollients during acute flare-ups.


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
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, pediatric 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

ACKNOWLEDGEMENTS
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