



THE AUSTRALASIAN COLLEGE OF DERMATOLOGISTS

The Australasian College of Dermatologists Consensus Statement

Topical corticosteroids in paediatric eczema

Purpose: to provide recommendations on the safe and effective use of topical corticosteroids in paediatric eczema

Audience: Health professionals

Acknowledgement: This statement has been adapted from Mooney E, et al. *Adverse effects of topical corticosteroids in paediatric eczema: Australasian consensus statement*. Aust J Dermatol. 2015 Nov;56(4):241-51 by The Australasian College of Dermatologists with permission from the authors.

Endorsement: This consensus statement has been reviewed and approved by the ACD Board of Directors.

Disclaimer: This consensus statement reflects the general views of The Australasian College of Dermatologists at the date of release and may be subject to amendment to reflect emerging clinical and scientific evidence. This information provides educational information and is not intended as a substitute for individual patient assessment. Practitioners are advised to interpret and apply recommendations according to the needs and circumstances of each patient.

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Purpose

The Australasian College of Dermatologists is committed to providing information, advocacy and advice on dermatological practice in Australia to health professionals, the community and government. Our focus is the delivery of efficient and effective dermatological specialty health services and work to improve outcomes for the skin health of individuals and whole communities.

The purpose of this consensus statement is to:

- Provide recommendations to health professionals on the safe and effective use of topical corticosteroids in paediatric eczema
- Summarise the evidence on adverse effects of topical corticosteroids
- Clarify misconceptions surrounding adverse effects to promote compliance amongst patients and their carers and curb steroid phobia within the community.

Background

Atopic eczema is a chronic inflammatory disease affecting about 30% of Australian and New Zealand children. Severe eczema costs over AUD6000 per year per child in direct medical, hospital and treatment costs, as well as time off work for caregivers and untold distress for the family unit. In addition, it has a negative impact on a child's sleep, education, development and self-esteem.

Topical corticosteroids (TCS) remain the mainstay of the management of active atopic eczema in combination with the regular use of emollients, the management of triggers and the treatment of concurrent infection. The safety profile of TCS remains robust when it is used appropriately.

Context

The advice given by dermatologists to parents of children with eczema regarding the use of TCS is unfortunately frequently undermined by misinformation among the general community, pharmacists and prescribing physicians. Unfounded concerns about their adverse effects has resulted in 'steroid phobia' and an underutilisation of TCS, leading to extended and unnecessary exacerbations of eczema for children.

There is a pressing need for the re-education of health professionals and the community on the excellent safety record of these medications.

Methodology

An Australian and New Zealand panel of paediatric dermatologists, paediatricians, dermatology nurses and advanced dermatology trainees was constituted to review the use of TCS in children with atopic eczema. The aim of the consensus meeting was to identify and address misconceptions on corticosteroid treatment of eczema, using published evidence combined with over 430 person-years of clinical practice in paediatric dermatology.

The resulting publication (Mooney E, et al. *Adverse effects of topical corticosteroids in paediatric eczema: Australasian consensus statement*. Aust J Dermatol. 2015 Nov;56(4):241-51) has been adapted for use by health professionals by The Australasian College of Dermatologists.

ACD Consensus Recommendations for Health Professionals

Guidance on the application of topical corticosteroids

When to apply

Apply 1–2 applications per day as per the product information, to all the inflamed skin until eczema is cleared. There is no requirement for intervals without therapy.

How much to apply

There is no requirement to use sparingly. It is recommended that an ample volume of cream is applied to sufficiently cover the entire affected area.

Potency ranking of selected TSC preparations

Class	Usual concentration (%)
Class I: mild	
hydrocortisone	0.5–1.0
hydrocortisone acetate	0.5–1.0
Class II: moderate	
clobetasone butyrate	0.05
hydrocortisone butyrate	0.1
betamethasone valerate	0.02
betamethasone valerate	0.05
triamcinolone acetonide	0.02
methylprednisolone aceponate	0.1
triamcinolone acetonide	0.05
Class III: potent	
betamethasone dipropionate	0.05
betamethasone valerate	0.05–0.1
mometasone furoate	0.1
Class IV: very potent	
betamethasone dipropionate in optimised vehicle	0.05
clobetasol propionate	0.05

Key points

- There is little difference in the clinical effect between 0.5, 1 and 2% hydrocortisone.
- Diluting a strong steroid with moisturiser does not reduce its clinical effect. Potency reduction is achieved by using a less potent steroid molecule.
- Most topical steroids can be applied once daily, preferably in the evening or at night.
- The recommendation ‘use sparingly’ is nonsensical and has no value.

ACD Consensus Recommendations for Health Professionals

Guidance on adverse effects

Misconceptions about adverse effects of TCS for the treatment of paediatric eczema are increasingly leading to its inappropriate use. The following guidance on adverse effects draws upon information from published medical literature and the combined clinical experience of the consensus panel.

Atrophy

What is commonly referred to as skin thinning by parents and non-dermatologists is usually a misinterpretation of active eczema. When TCS used for eczema in children are stopped on resolution of the dermatosis, irreversible skin thinning does not occur.

Striae / rubra distensae

TCS do not induce striae when used to treat atopic eczema in children, unless used inappropriately, or in overdose and only then at certain sites (i.e., axillae and groin).

Hypothalamic–pituitary–adrenal axis suppression

Physiological HPA suppression can occur with very widespread and prolonged, or occlusive use of potent / superpotent TCS. This recovers quickly. Clinically significant / pathological adrenal suppression is very rare in the treatment of paediatric eczema with TCS.

Infected or excoriated skin

There is no evidence that applying TCS on excoriated or infected eczema is deleterious. TCS should be the first-line treatment for atopic eczema, regardless of whether the skin is excoriated or infected. Clinically significant concurrent infection (e.g., *S. aureus*, *H. simplex*, *Molluscum*) should be treated.

Allergic contact dermatitis to TCS

Allergy to TCS is rare in children with atopic eczema, but should be considered in those children who demonstrate a poor response to appropriate strength TCS.

Osteopaenia / osteoporosis

Reduced bone mineral density is very unlikely to occur in children with eczema treated with TCS.

Ocular effects

Prolonged use of potent TCS in the periorbital area has rarely been associated with cataract and glaucoma. TCS use away from the eyes has not been shown to cause ocular sequelae.

Hypertrichosis

Transient hypertrichosis has been seen in discoid eczema and prurigo nodularis treated with potent TCS.

Periorificial dermatitis / rosacea

TCS may aggravate a tendency for periorificial / perioral dermatitis, in predisposed individuals.

Red face

The red face has not been described in children with eczema, but should be kept in mind in teenagers who continue to deteriorate despite increasing steroid potency.

Tachyphylaxis

There is no evidence to show that tachyphylaxis occurs in children with eczema treated with TCS.

Purpura

TCS do not induce purpura in children with atopic eczema.

Hypopigmentation

The hypopigmentation seen in patients treated with TCS, as their eczema clears, is caused by the eczema (as in pityriasis alba), not the treatment. TCS do cause short-term vasoconstriction, which can be mistaken as hypopigmentation.

Telangiectasia

Routine use of TCS in children with eczema should not cause telangiectasia.

Reference

E Mooney, M Rademaker, R Dailey, B Daniel, C Drummond, G Fischer, R Foster, C Grills, A Halbert, S Hill, E King, E Leins, V Morgan, R J Phillips, J Relic, M Rodrigues, L Scardamaglia, S Smith, J Su, O Wargon and D Orchard. Adverse effects of topical corticosteroids in paediatric eczema: Australasian consensus statement. *Australasian Journal of Dermatology* (2015) 56, 241–251
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