ECZEMA

Top tips for MURs

- Check that the patient understands that eczema is a chronic condition and regular application of emollients is the mainstay of therapy
- Advise patient when applying emollients to avoid vigorous rubbing and apply in the direction of the hairs
- Counsel patient to reduce risk of contaminating emollients supplied in tubs by scooping out with a utensil rather than placing hand into the tub
- Advise patient of fire risk associated with paraffin based emollients[1]
- Advise patient to apply emollient before and after doing anything that aggravates their eczema
- Counsel patient using tacrolimus not to apply emollients for at least two hours after application
- Advise patient to apply emollient first and allow to dry for 15 - 30 minutes before applying topical steroid
- Advise patient that weaker steroids should be used on the face, genitals and arm pits and stronger steroids on thicker sites such as arms and feet
- Reassure patients or parents of children with eczema who are concerned about the safety of steroids licensed for use in children, that adverse effects are rare, if topical steroid is applied thinly and for a short duration
- Advise patient to avoid using soaps, shower gels, bubble baths and detergents, which damage the skin barrier and to use emollient soap substitutes to wash and bath emollients instead of bubble bath
- Check patient understands fingertip units as a standard measure for topical steroid application **(see table below)**
- Advise patient to apply a thin film or layer of topical steroids, no more than twice a day, only to inflamed skin for a maximum of 14 days
- Counsel patient on signs and symptoms of complications that need referral (**see red flags overleaf**) and common side effects (**see overleaf**)
- Check women taking alitretinoin, who are of child-bearing age, are following a pregnancy prevention programme[2]
- Advise patients that alitretinoin contains soya oil and there may be cross sensitivity with peanut oil
- Advise patients taking alitretinoin to avoid blood donation during treatment and for at least 1 month after stopping treatment
- Check patient taking alitretinoin has had their serum lipid levels monitored regularly (due to risk of pancreatitis if triglycerides are above 9mmol/l) and the effectiveness of the treatment reviewed after 12 weeks. Maximum duration of treatment is 24 weeks.
- Advise patients taking pimecrolimus or tacrolimus to use sun protection (SPF15) and to minimise exposure to direct sunlight or sunlamps and to avoid alcohol consumption (due to increased risk of facial flushing, skin irritation & feeling systemically unwell)
- Report any relevant side-effects to the Yellow Card Scheme

Pathophysiology of eczema

Eczema (dermatitis) is an inflammatory condition characterised by red, sore and itchy skin[3]. The barrier function of the epidermis is compromised due to genetic and environmental factors increasing the risk of antigens penetrating the epidermis and triggering an immune response. Eczema is a chronic condition ranging in severity from mild through to severe and environmental trigger factors can precipitate a flare-up. Areas commonly affected include joints of the knee and elbows, as well as, the face and neck. Treatment primarily consists of preventing flare-ups by using complete emollient therapy to rehydrate the skin together with avoidance of trigger factors and treating flare-ups with topical steroids or topical tacrolimus / pimecrolimus when steroids cannot be used.

Lifestyle issues

- Counsel patient to avoid known trigger factors such as food (usually in infants and young children), overheating, rough clothing, animal fur or pollens and irritants such as detergents and soaps. Use protective gloves to avoid contact with household detergents.
- Advise patient that stress and alcohol can both trigger eczema flare-ups
- Advise patients to stop smoking as smoking can cause eczema flare ups. Refer to Stop Smoking Wales or Pharmacy Stop Smoking services if willing to stop
- Advise patient about bandaging to help stop scratching and the benefits of using wet bandages to help apply creams
- Counsel patient on reducing alcohol intake to within safe limits (up to 14 units a week, spread evenly over 3 or more days, with several alcohol free days)
- Counsel patient on healthy eating, exercise & weight loss (if BMI > 25kg/m^2) – reduce saturated fat and salt intake, avoid salt substitutes, increase oily fish intake, complete 30 minutes of aerobic exercise three to five times a week, reduce caffeine intake to no more than 5 cups a day and recommend 5 portions of fruit and vegetables a day

Fingertip units for steroid use

Body site	Fingertip units (FTUs) required				
	Adults	Children (3-6 mths)	Children (1-2 yrs)	Children (3-5 yrs)	Children (6-10 yrs)
Face and neck	2.5	1	1.5	1.5	2
Arm and hand	4	1	1.5	2	2.5
Leg and foot	8	1.5	2	3	4.5
Trunk (front)	7	1	2	3	3.5
Trunk (back) including buttocks	7	1.5	3	3.5	5

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How do drugs used to treat eczema work?

Emollients	Forms an occlusive barrier to rehydrate and soften skin which protects the skin against flare up triggers and infections.
Topical steroids	Reduces skin inflammation and erythema by suppression of the production of inflammatory substances such as prostaglandins and leukotrienes, as well as inhibiting the recruitment of inflammatory cells into the skin.
Topical immunomodulators - tacrolimus & pimecrolimus	Reduces skin inflammation by inhibiting production of prostaglandin E2 production from synovial cells.
Oral retinoid - alitretinoin	Regulates skin cell growth and reduces inflammation by interfering with cytokine production in keratinocytes and down-regulating leukocyte activity. Also reduces cell turnover.
Topical coal tar / ichthammol	Coal tar slows down excessive epidermal cell turnover. Ichthammol reduces skin inflammation by inhibiting activity of enzymes involved in prostaglandin production.

Oral antibiotics can also be used short term for clinically infected eczema and sedating antihistamines can be used at night, during flare-ups, to prevent sleep interruption due to itching. Severe eczema can also be treated with azathioprine, methotrexate, ciclosporin and mycophenolate which are not covered in this MUR guide.

Red flags that need referral

- Eczema not responding to regularly applied treatment
- Skin appears infected i.e. weeping or crusted
- Eczema herpeticum (widespread herpes simplex) – usually children
- Skin atrophy in patient using topical steroid
- Widespread areas of dry or red skin severely impairing quality of life
- Pregnancy in patients taking aliretinoin and tacrolimus, due to teratogenicity or toxicity

What are the common side effects to look out for?

Common side effects	Recommendation
Burning sensation on skin, itching, redness & skin infections	Advise patient that the burning sensation will diminish after a few days. Stop treatment & refer to prescriber if burning sensation continues, if lesions spread or if skin infected.
Facial flushing and skin irritation *(tacrolimus & pimecrolimus)*	Advise patient to avoid alcohol consumption.
Headache *(most commonly seen with alitretinoin)*	Refer to prescriber if accompanied by blurred vision.
Atrophy / thinning of skin *(most commonly seen with topical steroids)*	Reassure patient that the thinning of skin will be restored over a period of time after stopping treatment.
Telangiectasia (small dilated blood vessels), striae (stretch marks), easy bruising, acne and rosacea *(most commonly seen with topical steroids)*	Advise patient to ensure they apply the topical steroid thinly to only the affected areas no more than twice a day for the shortest period possible. Refer to prescriber if intolerable.
Conjunctivitis, eye irritation, dry skin around eyes or dry eyes *(most commonly seen with alitretinoin)*	Advise patient to use lubricating eye ointments or tear replacement drops for dry eyes and antibacterial drops for conjunctivitis. Refer to prescriber if intolerable or to eye specialist if a contact lens wearer.
Staining of clothes *(most commonly seen with coal tar & ichthammol)*	Wash out with detergent and hot water after contact period.

Potential serious drug interactions?

Drugs used to treat eczema can interact with other medicines – **See BNF Appendix1: Interactions for more details**

- Aliretinoin interacts with ketoconozole (↑ plasma level of Alitretinoin); vitamin A (↑ risk of hypervitaminosis A)and tetracycline (↑ risk of intracranial hypertension)

Where can you find more information?

- BNF sub-section 13.5 Preparations for eczema and psoriasis
- The management and treatment of skin conditions; distance learning pack found on the WCPPE website **(http://www.wcppe.org.uk)**
- NICE evidence search – eczema which can be found at **(http://www.evidence.nhs.uk)**
- National Eczema Society **(http://www.eczema.org)**
- Primary Care Dermatology Society **(http://www.pcds.org.uk)**
- British Association of Dermatologists **(www.bad.org.uk)**

References

1. Alert 1028 –Fire hazard with paraffin based products. November 2007. National Patient Safety Agency
2. British National Formulary – 13.5.1 – Topical preparations for eczema - Alitretinoin
3. The management and treatment of skin conditions, CPPE 2007

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