Managing Moderate to Severe Eczema Symptoms

A resource for healthcare professionals

AllergyUK

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What is eczema?

Atopic Dermatitis also known as Atopic eczema (“eczema”), is a chronic, relapsing inflammatory skin condition characterised by dry skin, intense pruritus (itch), rash, erythema (redness of the skin) and over time, lichenification (thickening of the skin) and altered pigmentation. It is the most common skin disorder in childhood affecting around 20% of children and 10% of adults, however around 50% of people affected by atopic dermatitis during childhood continue to have it as adults, often with more chronic and difficult to treat eczema. This can have a significant impact on an individual’s physical, psychological, and social wellbeing and dramatically impair quality of life.

For the majority of individuals with atopic eczema, standard therapy with topical treatment will help alleviate symptoms. However, there are some individuals whose eczema symptoms cannot be controlled using standard topical therapy and will need to be managed with treatments that modify the immune system to gain symptom control. Systemic immunosuppressive medication such as cyclosporine or methotrexate and more recently biologic therapies, including monoclonal antibodies (MABs) and Janus Kinase (JAK) inhibitors, have been found to be highly effective in the treatment of severe eczema.

Psychological impact of eczema

Atopic eczema can place a great burden on both the individual and family. There is a known link between quality of life and eczema severity, with sleep deprivation and itch having a huge impact. There is also a recognised financial burden on families. Having eczema, even perceived mild eczema, especially if it is in a visible area such as the face or hands, can have a significant impact on an individual’s body image and psychological wellbeing. This can lead to anxiety, depression, reduced self-confidence, and self-esteem.

Treatment options for eczema

Emollient therapy

Emollient therapy is an essential part of any treatment regime for atopic eczema and complete emollient therapy with a leave on emollient and soap substitute or bath/ shower emollient is used to help restore the skin barrier and reduce itch. Patients should be provided a choice of emollients in sufficient quantities to allow for liberal use.

Bathing: Daily bathing is useful to remove crusting and prevent infections. A minimum soaking time of 15-20 minutes and the use of emollients in baths helps moisturise skin further.

Topical Corticosteroids: (TCS) are recommended as the 1st line treatment for atopic eczema and work by dampening down the immune response to reduce the symptoms of inflammation, itch, and rash.

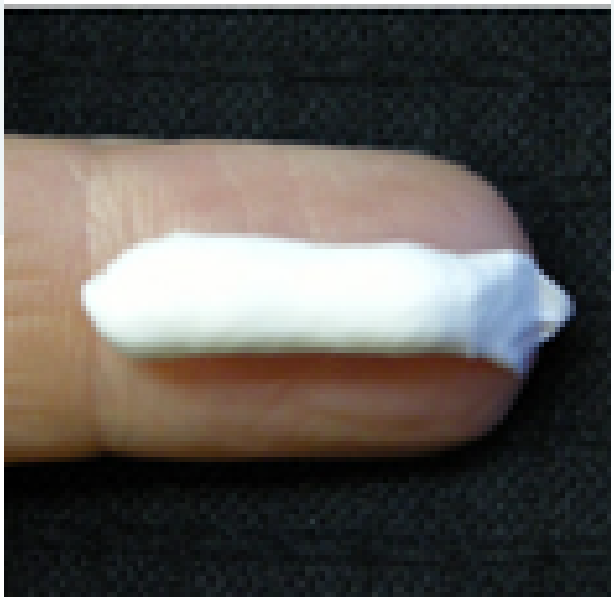
Topical corticosteroids are categorised according to potency Mild, Moderate, Potent and Very Potent. The potency of the topical steroid to be prescribed depends on the age of the individual, the severity of the eczema and the area to be treated. Mild to moderate potency steroids are typically used where the skin is thinner such as the face and genital areas. More potent TCS are used on the palms of the hand or soles of the feet where the skin is much thicker.

NOTE: Patients and families often worry about the long-term effect of TCS use and will often use less TCS than prescribed or not use them at all. Patient education around side effects, correct application including fingertip measurement unit, how to step down TCS and importance of regular emollient therapy is essential to support the correct application of TCS, adherence to therapy and improvement to the skin condition.

Fingertip measurement unit

A fingertip unit (FTU) is the amount of cream or ointment that just covers the end of an adult finger from the first bend in the finger to the fingertip and should be enough to cover an area of skin the size of two adult hands.

The amount of topical steroid used should be enough to leave a shine on the skin. TCS should not be used in place of emollient therapy but alongside it. A 20–30-minute gap between application of topical treatments is advisable.



Application of creams and ointments

When applying any creams, ointments, or lotions to the skin, it is a good idea to advise, to put dots or blobs on the affected area and then gently smooth in the cream in, always follow the direction of the hair growth and avoid rubbing vigorously to avoid clogging the hair follicles and prevent triggering itch and irritating the skin.

Weekend therapy: Patients with more persistent eczema may benefit from “weekend therapy.” This is the use of a topical corticosteroid (TCS) for two consecutive days (not necessarily Saturday/Sunday), as a “maintenance” treatment and then emollient only for the other 5 days of the week. This therapy can be highly effective for more chronic eczema or eczema which frequently flares. Weekend therapy must be used alongside regular emollient therapy, with regular follow-ups to assess progress.

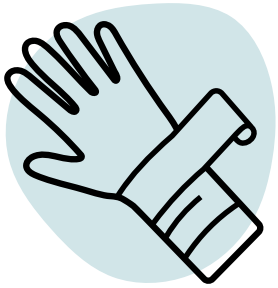
Topical calcineurin inhibitors: These work by blocking the effects of key inflammatory chemical messengers, inhibiting proliferation of T cells, and suppressing the production and release of inflammatory mediators. Topical calcineurin inhibitors are suitable for use in both children and adults and are used for more difficult to treat eczema to reduce steroids dependency or where topical steroids have not been tolerated. Treatments include Pimecrolimus, a cream-based treatment, and Tacrolimus, an ointment-based treatment. The main reported side effects are skin irritation and a burning sensation when first used, although this does settle with repeated application. TCIs can make the skin more sensitive to the sun, sun avoidance advice and a suitable sunscreen should be advised at the time of prescribing.

RED FLAGS

TCIs should not be used on skin where there is suspicion or known infection due to the risk of immune suppression with this medication.

Bandages, dressings, and wet wraps (NICE 2022, SIGN 2011)

Bandages and dressings are a useful way of providing a physical barrier and prevent scratching of the skin that can cause further damage. It also improves retention of the emollient (SIGN 2011).



Bandages: These can be dry and used to cover or keep in place other dressing. Bandages can also be impregnated with soothing ingredients including tar, ichthammol or zinc.

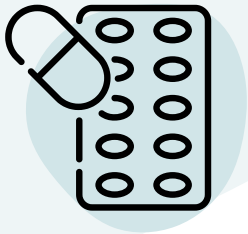
Occlusive and Semi Occlusive Dressings: These can include vapour-permeable films and membranes and hydrocolloid dressings. Some dressings are impregnated with corticosteroids. These dressings can be useful for hands where it may be necessary to occlude to protect areas with fissures, such as fingers and palms.

Wet Wraps: These require a layer of bandages. The bottom layer is soaked in warm water, squeezed out and then put onto the skin over the topical preparation. The top layer is dry and applied over the wet layer.

RED FLAGS

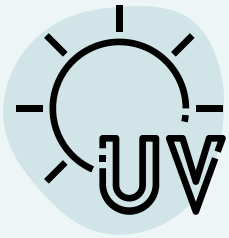
- Bandages / dressings should not be used on wet or infected eczema
- The potency of a topical corticosteroid will increase under occlusion, e.g., bandages and dressing so a lower potency steroid should always be used when occluding an area of skin that requires topical corticosteroids.

Antihistamines



Oral antihistamines are not effective at controlling the itch of eczema. Sedating antihistamines are sometimes used for short periods while initiating a treatment regime to aid deep sleep which may help inhibit scratching during sleep but are not usually useful in the long-term management of eczema.

Phototherapy



Phototherapy involves using UVB or UVA light waves to treat skin conditions including eczema. It is suitable for children and adults. Phototherapy is managed within dermatology departments as a prescribed treatment and the length of the course of the treatment will be determined by skin severity and ongoing assessment of improvement to skin condition. Some patients may experience a sunburn like reaction during a course of treatment, or the skin may become dry and itchy.

Systemic immunosuppressive treatments

Systemic immunosuppressive treatments, such as methotrexate and ciclosporin are designed to suppress the immune system and reduce the inflammatory process. The action of these medications means that they are not selective i.e., they have a suppressive effect on the whole immune system. These treatments are usually started by specialist. However, they require regular monitoring including blood testing to reduce the risk of unwanted side effects.

Biologics therapies - MABs and JAK inhibitors

Biologic therapies are designed to work by blocking or inhibiting chemical mediators or cytokines such as interleukins (IL) in the immune system from mounting an allergic response and causing inflammation.

These target specific interleukins (IL) depending on the type of allergic response and this is what makes the treatment effective at controlling the inflammatory process and reducing the potential for systemic side effects. In atopic eczema, treatments have been designed to target cytokine messengers such as IL4, IL 13, IL31, all of which have been found to be present in the inflammatory process.

Monoclonal Antibodies (MABs)

Monoclonal antibody therapies work by blocking specific interleukins and therefore reducing the inflammatory process. Treatment is given by regular injection. Some MABs have also been shown to have a therapeutic impact on other atopic comorbidities including atopic asthma. There is currently one such treatment that binds to the alpha subunit of the IL-4 receptor and inhibits signalling of both IL- 4 and IL-13 pathways. It is available within the NHS from age 6+ for individuals with severe atopic eczema.

Janus Kinase Inhibiters

Janus kinase inhibitors or JAK inhibitors are designed to target specific areas of the immune system and block the chemical messengers that activate inflammation and itch in eczema. Two oral JAK 1 inhibiter medications have so far been approved for use within the UK for severe atopic dermatitis, with two JAK 1 inhibitors recently licensed for children aged 12+ with severe atopic eczema. There are other oral and topical JAK inhibitors in the development phase (phase III) that are not yet licensed.

RED FLAGS

It is important to note that any patient starting on biologic therapy will need long term monitoring. Clinicians must be vigilant and record and report any changes in a person health status while they are taking the medication.

Investigations for eczema

The following investigations can be used in the diagnosis and management of eczematous conditions when required:

Infections: Bacterial and viral swabs for infection and skin scrapings for mycology (fungal infection)

Contact Allergens: Skin patch test testing can be a useful diagnostic tool for contact allergens if contact dermatitis is suspected.

Blood testing is recommended for the following:

Monitoring: In systemic treatments such as cyclosporine and methotrexate regular blood testing is required, e.g., monitoring of kidney function.

Prior to the start of treatments: such as biologic therapies. Markers in the blood can help to determine which therapy will be most suitable for the patient as well as ongoing monitoring once treatment is established.

Blood testing is also useful to rule out or confirm other medical conditions

Allergy testing: Atopic eczema is not an IgE mediated allergy and so skin prick testing, and specific IgE blood test are not useful in diagnosing atopic eczema. However, these investigations can be useful in identifying triggers in atopic individuals especially where aero allergens or food allergens are suspected to irritate the skin.

Biopsy: Occasionally a skin biopsy may be required to confirm diagnosis where the presentation of symptoms or history is not clear.

Complications in eczema

Skin infection is a common cause of eczema flares and assessment to rule out skin infection should always be carried out in cases of difficult to treat eczema. Skin infection can include bacterial, fungal, and viral causes.

Common infections include staph aureus, streptococcus, candida, tinea (ringworm) and Herpes simplex.

Systemic treatment is preferred over topical medication for bacterial infections as these are more effective and there is a risk of antimicrobial resistance with topical agents.

RED FLAGS

Suspicion of Eczema Herpeticum requires an emergency referral to a dermatology specialist to enable prompt management of the condition.

Patients should also be referred to a dermatologist for the following;

- Uncertainty concerning the diagnosis
- Poor control of the condition or failure to respond to appropriate topical treatments, psychological upset, or sleep problems
- Recurrent secondary infection.

Allergens and irritants

it is important to remember that individual trigger irritants and allergens vary hugely from person to person. While some trigger factors may be easy to identify, it may not be so easy to pinpoint others due to the delayed immune response in atopic eczema. In this case it is advisable to ask your patient to keep a symptom diary for a period of around 2-4 weeks to see if any triggers can be identified.

Common trigger allergens and irritants include skin infection, sudden changes in temperature, stress, detergents (soap, bubble bath, washing up liquid) fragrance, perfume, fabrics including animal wools and man-made fibres, house dust mite, pets, pollen, mould spores and foods in infants.

Useful resources

Tools to assess eczema severity

The use of validated tools is useful when assessing the severity of atopic eczema, these include;

- Patient Orientated eczema Measure (Poem)
- Eczema Area and Severity Index (EASI)
- SCORing Atopic Dermatitis (SCORAD)

Useful resources for patients

Eczema care online - https://www.eczemacareonline.org.uk/

University of Bristol Eczema Resources - https://www.bristol.ac.uk/eczema

Allergy UK - https://www.allergyuk.org/types-of-allergies/eczema/

National Eczema Society - https://eczema.org/

Eczema Outreach Support - https://www.eos.org.uk/

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We're here to help

Contact our Helpline Monday - Friday, 9am-5pm:

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#itstimetotakeallergyseriously

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