**Referral Support Service**

**Dermatology**

**D08**

**Hand Eczema/Dermatitis**

**Definition**

* **Acute hand eczema:** eczema localised to the hands which lasts for less than three months and occurs less than once a year
* **Chronic hand eczema:** Eczema localised to the hands which lasts for longer than three months and/or relapses more than once a year

**Risk factors:**

* Atopic eczema/dermatitis in childhood
* Persistent/ Severe atopic eczema
* Wet work
* Cold and/or dry weather
* Decreased indoor humidity (central heating or air conditioning)
* High risk occupations- hairdressers, health care workers, dental workers, metal workers, bakers, butchers, florists, cashiers, industrial workers.

**Differential diagnosis**

* Atopic eczema
* Pompholyx - very itchy vesicles, often on the lateral borders of the fingers
* Psoriasis
* Phyto (plant) or photodermatoses
* Tinea, (especially if unilateral symptoms)
* Scabies

**Exogenous eczema:**

* Contact irritant eczema - usually due to a substance coming into contact with the skin, often repeatedly, causing damage and irritation. Common causes are water, detergents, baby wipes, facial cleansing wipes, shampoos, household cleaning products, food (*e.g.* potato, onion, tomato, citrus fruits or meat juices).
* Contact allergic dermatitis - Due to type IV (delayed) allergic reaction. Contact allergy requires repeated exposure to the allergen, often taking weeks or even years to develop, thus contact allergic dermatitis is often caused by something that has been used previously without causing a problem.

**Exclude Red Flag Symptoms**

* **Consider infection and treat with antibiotics if appropriate, as per the** [**North Yorkshire Antibiotic Guidance for Primary Care**](https://northyorkshireccg.nhs.uk/clinical-portal/medicines-and-prescribing/antimicrobial-prescribing/?highlight=antimicrobial) **May 2019**
* If a 1 week course does not produce an adequate response, continue for 2 weeks in total.

**Prevention**

1. **Gloves**

* Use protective gloves for wet work and irritant substances at home and at work
* Protective gloves should be intact, clean and dry
* Use gloves for as short a time as possible, as friction, sweating and heat from their use may also trigger irritant dermatitis
* If gloves are worn for more than 10 minutes, cotton gloves should be worn underneath, and changed regularly
* Single use gloves should only be worn once
* Wear warm gloves outside in winter and in the cold.
* **Avoidance of irritants**-avoid all possible ones as there can be several contributing causes.
* **Gloves** (household PVC gloves) should be used for wet work such as hair washing.
* Washing up should ideally be done in cotton gloves inside a pair of rubber gloves to reduce/absorb sweat, also household cleaning, childcare (nappies, wet wipes, bathing), preparing food, especially irritant fruit and vegetables
* Gloves are often also required for dry work e.g. gardening, dusting, DIY and in winter to protect skin from irritants/environment.

1. **Hand washing**

* Wash hands as infrequently as possible to maintain cleanliness and remove hazardous substances
* Wash in lukewarm, not hot, water
* Avoid brushes or abrasives to wash skin
* Rinse and dry thoroughly and gently after washing.
* Substitute hand washing with soap with alcohol gel when possible- it is less irritant than soap

1. **Other preventative measures**

* Apply emollients before work, after work and at breaks
* Do not wear rings or other hand jewellery whilst doing wet work
* Avoid friction (e.g. handling a lot of paper, bricklaying, stacking shelves) as this is irritant and can be sufficient to trigger it on its own. Rough materials and hand tools will also damage the skin in this way

**Management**

* **Soap substitutes/emollients**, should be used, both instead of soap and as a leave-on moisturiser.
* Discuss buying small quantities OTC to encourage use out of the house-can be cheaper than a prescription charge.
* Pump dispensers or tubes are best to avoid introducing infection into the emollient.

If using a tub emollient, remove with a clean spoon to minimise contamination with bacteria from skin

* Any emollient is beneficial to treat dryness, patients vary in their preferences.

Emollients under cotton gloves at night can increase skin hydration, especially a thicker emollient such as epimax ointment

* There is no evidence from controlled trials to support the use of one emollient over another therefore selection is based on the known physiological properties of emollients, patient acceptability, dryness of the skin, area of skin involved and lowest acquisition cost.
* Avoid aqueous cream is no longer considered suitable as a leave-on emollient or soap substitute for diagnosed dermatological conditions due to its tendency to cause irritant reactions and availability of emollient creams with a lower acquisition cost.
* Advise patients not to: smoke; use naked flames (or be near people who are smoking or using naked flames); or go near anything that may cause a fire while using emollients, emollients on clothing/bedding can cause a fire hazard. See [MHRA warning](https://www.gov.uk/drug-safety-update/paraffin-based-skin-emollients-on-dressings-or-clothing-fire-risk) for full advice.
* **Topical treatments Topical steroids**
* The strength of topical steroid required varies from patient to patient.
* However, often it is necessary to use a potent or very potent topical steroid short/medium term *e.g.* for 4 weeks.
* Mildly potent — e.g. **hydrocortisone 0.1%, 0.5%, 1.0%, and 2.5%**
* Moderately potent — e.g. **betamethasone valerate 0.025% (Betnovate-RD®) & clobetasone butyrate 0.05% (Eumovate®)**
* Potent — e.g. **betamethasone valerate 0.1% (Betnovate®)**
* Very potent — e.g. **clobetasol propionate 0.05% (Dermovate®)**
* Quantities of topical corticosteroid required to treat a flare of eczema for 1 week in an adult (about half of this is needed for a child) - Both hands=15–30g
* Aim to treat as soon as it begins to flare up for a quicker response.
* Prescribe a cream formulation if ‘wet’ and ointment if ‘dry’, although patient preference is also important.
* Short term occlusion of topical steroids when failing to respond to potent or super potent steroids can be useful (e.g. steroid ointment under clingfilm or haelan tape or betesil plasters)
* **Calcineurin inhibitors** (pimecrolimus cream and tacrolimus ointment 0.1% may also be efficacious).
* **Oral steroids:** Severe acute flares may need short courses of oral prednisolone, eg 30/20/10/5mg od reducing, either for 5 days each or 7 depending on severity

**Management of specific eczema sub-types**

1. **Hyperkeratotic/ thickened eczema**

* This may benefit from an emollient with a keratolytic element such as nutraplus (on formulary) or Eucerin 10% or flexitol, though patients would have to buy the letter themselves
* Betamethasone and salicylic acid may also be helpful for the same reason, calcineurin inhibitors are less helpful in this scenario as they fail to penetrate thicker skin

1. **Infected eczema**

* Consider secondary infection and treat if appropriate, as per the [North Yorkshire Antibiotic Guidance for Primary Care](https://northyorkshireccg.nhs.uk/clinical-portal/medicines-and-prescribing/antimicrobial-prescribing/?highlight=antimicrobial)
* Secondary infection, usually with staphylococcus aureus, may present as sudden worsening of the dermatitis with yellowish exudate and crusts or pustules.
* Consider a swab for culture and sensitivity.
* Systemic antibiotics should be prescribed if there are signs of widespread infection or patients are systemically unwell. Patients that are immunocompromised or are taking immunosuppressant therapy may require antibiotics sooner.
* Since bacterial resistance to topical antibiotics occurs quickly, systemic antibiotics are preferred.
* Topical antimicrobial, e.g. **Dermol®** may be used short-term for localised infected skin in patients that are not systemically unwell. This should be used in the acute weeping stage of the infection and will support drying of the area. As symptoms improve, consider switching to an emollient ointment for long-term use.
* See BNF for additional prescribing information.

**Prognosis and duration of treatment**

Use of gloves and moisturising creams must be continued for months after chronic hand dermatitis has apparently settled so that the barrier function can be restored. It can take at least 8 weeks for tiny fissures and cracks to heal once the skin looks normal and an exacerbation is more likely during this time.

**Therapeutic tips**

* Other skin conditions can mimic eczema and should be kept in mind *e.g.* if “eczema” is present on only one hand a fungal infection needs to be excluded by taking skin scrapings for mycology.
* It is usually worth examining the patient’s skin all over as this can provide clues to other diagnoses e.g. plaques in extensor distribution in psoriasis, scabetic nodules
* Pustules on the hands (and instep of the feet) particularly in smokers may be palmoplantar pustular psoriasis

**Patch Testing**

* If allergic contact dermatitis is suspected, take a careful occupational and social history, including hobbies.
* Is only of value in the investigation of contact allergic dermatitis.
* Is not of use with type 1 reactions (*e.g.* food allergies causing anaphylaxis / urticaria / angioedema; airborne allergens such as animal dander, house dust mite; latex allergy.

**Referral Information**

* **Referral Criteria**
* Allergic contact dermatitis that may need patch testing.
* Severe chronic hand eczema, which has failed primary care management as described.
* **Information to include in referral letter**
* Please detail what treatments have been tried and their response
* Past medical history of atopy and family history, psoriasis
* Occupational history and detail any relevant hobbies
* Photograph required – please refer to the CCG commissioning statement [here](https://www.valeofyorkccg.nhs.uk/seecmsfile/?id=1210&inline=1&inline=1&inline=1&inline=1&inline=1&inline=1&inline=1&inline=1&inline=1)
* Relevant past medical/surgical history
* Current regular medication
* BMI/Smoking status

**Patient information leaflets/PDAs** *(these may not represent local commissioning guidance)- from the British Association of Dermatology*

* [Contact dermatitis](https://www.bad.org.uk/pils/contact-dermatitis/)- April 2021
* [Hand dermatitis](https://www.bad.org.uk/pils/hand-dermatitis-hand-eczema/)- October 2023
* [Atopic eczema](https://www.bad.org.uk/pils/atopic-eczema/)- July 2020

**References**

* [CKS management of contact dermatitis in primary care- January 2024](https://cks.nice.org.uk/topics/dermatitis-contact/#!scenario)
* [CKS guidance on eczema-atopic July 2024](https://cks.nice.org.uk/topics/eczema-atopic/)
* [Guidance for eczema on hands and feet for medical professionals](https://patient.info/doctor/eczema-on-hands-and-feet)
* [Guidelines for diagnosis, prevention, and treatment of hand eczema (wiley.com)](https://onlinelibrary.wiley.com/doi/epdf/10.1111/cod.14035)
* [Hand dermatitis (hand eczema) | DermNet (dermnetnz.org)](https://dermnetnz.org/topics/hand-dermatitis)