Supporting Training Initiatives

the otc treatment clinic

Common conditions and their treatment options

This module has been endorsed with the NPA's Training Seal as suitable for use by medicines counter assistants as part of their ongoing learning. Complete the questions at the end to include in your self-development portfolio

training matters

Welcome to *TM's* OTC Treatment Clinic series. This handy, four-page section is specially designed so that you can detach it from the magazine and keep it for future reference.

Each month, *TM* covers a different OTC treatment area to help you keep up-to-date with the latest product developments. In this issue, we focus on dry skin and eczema. At the end of the module are multiple choice questions for you to complete, so your pharmacist can monitor your progress.

You can find out more in the *Counter Intelligence Plus* training guide.

The last six topics we have covered are:
- Insomnia and sleep problems
- Coughs
- Topical pain relief
- Eye care
- Head lice
- Acne

You can download previous modules from www.tm-modules.co.uk

module 212

Dry skin and eczema

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for this module

OBJECTIVES: After studying this module, assistants will:
- **Be familiar with the basic structure and function of human skin**
- **Understand how dry skin and eczema can disrupt the skin's barrier function**
- **Be aware of the causes and symptoms of dry skin and eczema**
- **Understand the role of emollients in relieving dry skin and eczema**
- **Know which customers can self-treat and which to refer to the pharmacist**
- **Be able to offer lifestyle advice to help minimise the risk of flare-ups.**

Fortunately, we live in a time when most common ailments can be effectively treated with OTC remedies – paracetamol can relieve a headache, topical NSAIDs can ease muscle pain, and so on. Yet for the few common ailments without a quick-fix cure, the aim of treatment is symptom management. One such condition is atopic dermatitis, more commonly known as 'eczema'.

Eczema affects one in five children and one in 12 adults in the UK, according to the National Eczema Society (NES). Symptoms often come and go throughout an individual's life and, while they may be uncomfortable, they are usually manageable with the right treatment.

GPs and dermatologists may have extensive knowledge of dry skin conditions, but their time is often limited. The pharmacy, meanwhile, offers a convenient and friendly place where patients can seek help.

Skin structure

Skin is made up of three main layers – the epidermis, the dermis and subcutaneous tissue. The epidermis is mostly comprised of keratinocytes, which are formed in the lowest layer and mature as they move towards the surface, where they are gradually worn away and replaced.

The dermis is thicker and contains many different structures, including blood vessels, nerves and proteins, such as collagen. Sweat glands and the base of hair follicles are also in the dermis.

The innermost layer, the subcutaneous tissue, is an important insulator as it regulates the body's temperature. It also helps to protect the vital internal organs.

Human skin has many roles – from helping to regulate body temperature to assisting in vitamin D production, as well as acting as a barrier against harmful agents such as bacteria and chemicals.

reflective exercise

Susan, 58, has suffered from occasional episodes of mild eczema since she was a child. She comes to the pharmacy to buy a treatment for a small patch of eczema on her wrist. The patch is red and itchy, but the skin is not broken. Susan also regularly suffers from dry skin.

What would you recommend?
An emollient ointment preparation may help to add moisture to Susan's skin, which could help to ease itching and reduce redness. Susan should apply this liberally and frequently every day. It may be trial and error to find a formulation or product that effectively relieves Susan's symptoms. However, the majority of mild to moderate cases of eczema can be successfully treated with emollient therapy alone.

What if:
Susan mentions that her skin has reacted to eczema treatments in the past.

Recommend that she tests the product on a small, unaffected patch on her arm to see whether a reaction develops within 24 hours. If no reaction occurs then the product is unlikely to irritate her eczema and should be applied as directed by the manufacturer's instructions. If a reaction does occur, Susan should come back to the pharmacy and talk to the pharmacist.

What if:
Susan is not satisfied with the product you recommended.

Finding the right emollient can be trial and error. Susan may benefit from applying a range of products: an ointment before bed, a cream or lotion during the day, and a bath oil or soap substitute instead of her usual shower gel or cleanser. This method of 'complete emollient therapy' can manage eczema and help to prevent flare-ups.

What if:
Susan is wearing a metal watch.

Ask Susan if she has started wearing the watch recently. Metal, particularly nickel and cobalt, can cause allergic contact dermatitis. If unsure, refer Susan to the pharmacist.

What if:
Susan asks for a corticosteroid cream.

Provided the skin is unbroken, corticosteroid creams can be effective at relieving eczema. As Susan describes her skin as itchy, recommend a product that contains an anti-itch ingredient as well. Advise Susan that corticosteroid creams should be used for a maximum of seven days and should only be applied once or twice a day.

What if:
Susan thinks her four-year-old grandson has eczema on his knee and wonders whether a corticosteroid cream may be effective.

Topical OTC corticosteroids are not suitable for children under 10 years of age. Ask Susan whether her grandson has been diagnosed with eczema as the condition often runs in families. Tell Susan to bring her grandson into the pharmacy so that a suitable product can be recommended.

Differences between dry skin and eczema
While healthy skin is an effective barrier that keeps moisture in, and bacteria and irritants out, dry skin is noticeably less effective.

Picture the skin as a brick wall: the bricks are cells being held together by mortar – fats and oils. An eczema patient may not produce enough fats or oils, which means their skin is less capable of retaining water. When skin cells lack water, they shrink, which causes gaps to open up between them. If bacteria and irritants get through the cracks into the deeper layers, the skin becomes irritated and inflamed. This can lead to redness, itching, cracking, fissures and secondary bacterial infections.

Dry skin
Dry skin (xerosis) can occur at any time, but is particularly common during winter when cold weather and blasting central heating creates low humidity. Dry skin is also more common in older people as the skin becomes thinner and loses sweat and oil glands with age. Other possible causes include dehydration, lack of sun exposure, smoking and pre-existing health conditions such as diabetes.

Dry skin is a condition in its own right and is the primary symptom of common skin ailments, particularly atopic and contact dermatitis. It commonly affects the lower legs, arms, thighs and sides of the abdomen. Common symptoms include scaling, itching and cracking, which can lead to secondary bacterial infections.

From the patient's perspective, dry skin can be uncomfortable, particularly if it causes itching or feels rough or scaly. Dry skin can affect quality of life, especially if itching disrupts sleep or flaking skin makes the sufferer reluctant to socialise.

Eczema
'Atopic' refers to an individual's tendency to develop allergic conditions, while 'dermatitis' describes skin inflammation. Therefore, atopic dermatitis, or eczema, is an inflammatory skin condition with a genetic link to the development of other allergic conditions, most commonly asthma and hayfever.

Eczema affects people of all ages, but is most common in children, affecting five to 15 per cent of children younger than seven years old in the UK. According to the NES, most children grow out of their symptoms, with around 65 per cent being symptom-free by the age of seven, and 74 per cent by 16.

Eczema is characterised by periods of symptom flare-ups, followed by times when symptoms ease or disappear.

While each individual is different, the most common symptoms include dry, itchy skin and rashes. If the affected skin is scratched, this can lead to redness, swelling, cracking, weeping, crusting, scaling and eventual thickening of the skin. It may also be susceptible to secondary bacterial infections.

In infants, symptoms typically appear as a patchy rash on the cheeks or chin at six to 12 weeks of age. This can progress to red, scaling and oozing skin that is more prone to infection. Once the child starts crawling, the inner and outer parts of the arms and legs may also be affected. Itching and discomfort can make children restless and irritable.

In older children, the rash tends to appear behind the knees, inside the elbows, on the sides of the neck, around the mouth and on the wrists, ankles and hands.

The exact cause of eczema is unknown, but it is probably a combination of genetic and environmental factors. It is not contagious.

Genetics play an obvious role as those who have one or both parents with eczema, or a similar atopic condition, are more likely to suffer themselves. People who have a non-identical twin with eczema are also three times more likely to suffer than the average person.

Environmental factors are triggers that initiate symptoms in genetically predisposed individuals. Triggers can vary, but commonly include soap and detergents, house dust mites, animal fur and saliva, pollen, and wool or synthetic material. Hot weather, high or low humidity, cigarette smoke and excessive perspiration can also be factors. Some sufferers report stress as a trigger. However, how this contributes to the condition is unclear. Eczema is also occasionally linked to food allergens, particularly in young infants. Foods most

Dry skin conditions often cause itching if untreated

commonly associated with the condition include dairy or soy products, eggs, nuts, seeds, and wheat.

Contact dermatitis

Contact dermatitis occurs when a sensitive person comes into contact with a particular substance. It is the most common work-related skin condition in the UK, affecting nine per cent of the population, according to the NES.

Symptoms can appear anywhere, but commonly develop on the hands and face. Skin that is directly exposed to a particular substance may become red, inflamed, swollen, blistered, dry, thick or cracked. Sufferers may also experience burning or stinging.
There are two types of contact dermatitis:

- **Irritant contact dermatitis:**

Irritant contact dermatitis is the more common type, making up 80 per cent of cases, according to NHS Choices. It occurs when an irritant damages the outer layer of the skin. Symptoms usually appear within 48 hours of exposure, although strong irritants may cause an immediate reaction, while milder irritants may require repeated exposure. Symptoms range from mild dryness and redness to burns and blisters.
Common irritants include:

- Soaps and detergents
- Disinfectants, antiseptics and antibacterials
- Fragrances and preservatives
- Solvents
- Acidic and alkaline substances
- Machine oil
- Cement and powders
- Dust and soil.

People who work in certain occupations are more susceptible than others, including agricultural workers, hairdressers, chemical and construction workers, cleaners, chefs, machine operators and healthcare workers.

- **Allergic contact dermatitis**

Allergic contact dermatitis occurs when an individual comes into contact with a substance that triggers an allergic reaction. These are called allergens and they vary between sufferers. The first time a person comes into contact with an allergen, the body becomes sensitised but produces no obvious reaction. It is only once the exposure to that allergen is repeated that the skin reacts with a red, itchy rash.

Common allergens include:

- Cosmetic ingredients, e.g. preservatives and fragrances
- Metals, particularly nickel and cobalt. Nickel sensitivity is common among people who wear inexpensive, metal jewellery
- Rubber, including latex
- Strong glues, e.g. epoxy resins
- Certain plants, e.g. chrysanthemums.

Treating dry skin and eczema

Treatment for dry skin and eczema has two aims – to maintain healthy skin and to prevent flare-ups. While avoiding known triggers is important, using OTC treatments can help to manage symptoms.

- **Emollient therapy**

Emollients are moisturisers that are often unfragranced and lack cosmetic claims, such as anti-ageing properties.

Emollients restore moisture to dry skin, which helps to improve the skin's barrier function. They also help to relieve itching, which reduces damage caused by scratching. The majority of cases of mild to moderate eczema can be treated using emollient therapy alone. However, emollients are often underused, as many sufferers view them as 'moisturisers' and don't appreciate how important they are in managing symptoms.

Types of emollient

Emollients are available in various different formulations:

- **Creams, lotions and ointments**

Creams are a mixture of water and fat and tend to be non-greasy and easy to spread. They are appropriate for daytime use. Due to their water content, they often contain preservatives, which some people may become sensitised to. Aqueous cream was once promoted as an effective moisturiser and wash-off soap substitute. However, reports of skin irritation, particularly in children, mean that it is no longer recommended.

Lotions contain more water and less fat than creams. They spread easily on the skin and produce a soothing, cooling effect, but are the least effective for moisturising very dry skin. Lotions are useful for hairy areas of skin or quick application.

Ointments have a thick, greasy consistency and are the most effective emollient at holding water in the skin. They are recommended for very dry and thick skin, and are best applied before bed. However, they are not suitable for weeping eczema and some users find their consistency unpleasant. As ointments don't contain preservatives, users should not put their fingers directly into the pot. They should use a clean spatula instead.

- **Bath oils**

Emollient bath oils coat the skin with a layer of oil that traps water in the skin. Oils can be applied in the shower, but they make surfaces slippery so should be used with caution, particularly when bathing young children.

- **Soap substitutes**

Conventional soap is very drying, particularly to the hands, and should be avoided by sufferers of atopic or contact dermatitis. Emollient soap substitutes can be used as

emollient tips

- Smooth emollients into the skin gently using downward strokes – do not rub continuously
- Apply frequently – sufferers of very dry skin may need to apply an emollient every two to three hours on exposed areas
- Between 250g and 600g a week is usually required for the average sufferer; children typically require 250g
- Large amounts of cream, gel or lotion should be dispensed from a pump
- When dispensing from emollient pots, the required amount should be scooped out using a clean spatula
- OTC emollient products can be applied all over the body to prevent symptoms
- Wash hands before applying an emollient and keep fingernails short and smooth
- Allow emollients to absorb into the skin before applying any other treatments. If the emollient has not absorbed properly, it may dilute the treatment
- After bathing, dry skin gently, leaving it slightly moist before applying leave-on emollients
- Use emollients of a more greasy consistency, e.g. ointments, before bed
- Use soap substitutes when cleansing
- For complete emollient therapy, use an emollient bath or shower oil before applying a cream, lotion or ointment.

alternatives to regular soap and, although most don't produce foam, they are effective cleansers.

Choosing the right emollient

Different customers may prefer to use different emollients. The correct one will be the one they like to use as frequent use is critical. When trying a new product, customers should apply a small amount to an area of unaffected skin to test for any reaction. Finding the right emollient can be a matter of trial and error. Ideally, customers should choose a range of emollients – a cream or lotion for daytime, an ointment for bedtime, a bath additive and a soap substitute. This is referred to as 'complete emollient therapy'.

Once the preferred treatment has been chosen, it needs to be applied frequently – at least three times a day, or even hourly in severe cases. Application after bathing is key to trapping moisture in the skin.

Emollients should be applied gently in the direction of hair growth. All areas of the skin should be treated and application should continue – even if symptoms improve – to help prevent future flare-ups.

Your pharmacy may stock many different emollient options. Popular brands include Oilatum, Aveeno, Cetraben and Dermalex.

Many emollients have simple formulations, while others contain added active ingredients. Examples include light liquid paraffin and soft white paraffin (e.g. Oilatum), which work by providing a layer of oil on the skin to prevent water evaporating from the skin's surface, and urea, which is a hydrating agent that draws water from the lower layers of the skin into the epidermis (e.g. Aquadrate, Calmurid). Other products contain antiseptic (e.g. Dermol Cream) or lauromacrogols (e.g. E45 Itch Relief Cream), which has local anaesthetic properties to soothe itchy skin.

Topical corticosteroids

Corticosteroid creams and ointments reduce inflammation and are safe when used appropriately. However, some patients worry about their potential side effects, leading to underuse or stopping use prematurely.

Topical corticosteroids are classed by their potency – mild, moderate, potent and very potent. Only the mildest products are available OTC such as hydrocortisone in strengths up to 1% (e.g. HC45, Lanacort), clobetasone butyrate 0.05% (e.g. Eumovate), as well as products that combine a corticosteroid with an anti-itch ingredient (e.g. Eurax Hc).

OTC topical corticosteroids should only be used once or twice a day for a maximum of seven days and are not suitable for children under 10 or pregnant women. They should not be applied to the face, or to broken or infected skin. Discuss with the pharmacist how to respond to requests for these products.

Oral antihistamines

Antihistamine tablets may be useful in some sufferers, particularly children whose itching disrupts sleep. Older style antihistamines, such as chlorphenamine (e.g. Allercalm, Piriton) cause drowsiness as a side effect.

When to refer

- First time symptoms of eczema
- If OTC emollients are ineffective
- Signs of secondary bacterial skin infection e.g. open sores, crusting or weeping
- Symptoms that affect quality of life
- Large areas of scaling or peeling
- Side effects of an OTC treatment.

Self-care tips for dry skin

- Stay hydrated
- Bathe in warm, not hot, water
- Limit the time spent bathing
- Avoid scratching and keep fingernails short; wearing mittens at night can prevent children from scratching in their sleep
- Avoid known allergens or triggers
- Avoid indoor and outdoor extremes in temperature – a humidifier can add moisture
- Wear cotton or silk clothing; avoid wool and synthetic fibres. Remove clothing tags
- Wash clothes in fragrance-free detergents
- Wear sunscreen during hot weather.

More information

- National Eczema Society: www.eczema.org
- The British Skin Foundation: www.britishskinfoundation.org.uk
- Eczema Advice Programme: www.eczemaadvice.co.uk

assessment questions: dry skin and eczema

For each question, select one correct answer. Discuss your answers with your pharmacist.

1. Which of the following statements is FALSE?

a) Human skin has four layers ☐
b) Blood vessels, nerves, hair follicles and sweat glands are all found in the dermis layer of the skin ☐
c) Human skin helps to regulate body temperature ☐
d) Healthy, well-hydrated skin is an effective barrier against harmful chemicals and bacteria ☐

2. Which of the following applies to dry skin?

a) It is more common during the winter months ☐
b) Older people are more susceptible ☐
c) Symptoms can include scaling, itching and cracking, rough skin and scaliness ☐
d) All of the above ☐

3. Which of the following statements is TRUE?

a) Eczema is an ongoing condition; there is no evidence that children outgrow their symptoms ☐
b) Eczema is characterised by constant skin rashes; symptoms do not come and go ☐
c) In infants, eczema typically begins around six to 12 weeks of age, first appearing as a patchy rash on the cheeks and chin ☐
d) There is no evidence linking eczema to food allergies ☐

4. A hairdresser comes into the pharmacy. She explains that a sore, itchy rash develops on her hands when she applies a particular hair dye. Which condition is likely to be the cause of her symptoms?

a) Eczema ☐
b) Allergic contact dermatitis ☐
c) Irritant contact dermatitis ☐
d) None of the above ☐

5. Which of the following is NOT helpful in the long-term management of dry skin and eczema?

a) Applying emollients daily, regardless of whether symptoms are present ☐
b) Substituting fragranced bubble baths for emollient bath oil ☐
c) Applying an emollient soap substitute to wash hands ☐
d) Persistently recommending a specific brand even if the patient dislikes the product ☐

6. Which of the following statements is FALSE?

a) When used appropriately, topical corticosteroids are safe and effective for relieving eczema flare-ups ☐
b) All topical corticosteroid potencies are available OTC ☐
c) Drinking lots of water helps to prevent dry skin ☐
d) People with dry skin or eczema should opt for cotton or silk clothing and avoid wool and synthetic fibres ☐