THE ECZEMAS

From Greek: ‘Eczema’ to boil out

Updated PDP Self-Test Questionnaire
2010

Number 1

Core Tutorials in Dermatology for Primary Care

PDP Self-Test Questionnaire

‘Old Faithful’ Geyser of Napa Valley, California
PDP SELF TEST QUESTIONNAIRE

INTRODUCTION

This ‘self-test questionnaire’ has been written by Dr Brian Malcolm, based on the revised (2010) Chapter 1 “The Eczemas” of the Core Tutorials in Dermatology for Primary Care. This updated Chapter has been sent out to healthcare professionals with the compliments of Dermal Laboratories. If you have not received a copy of this updated Chapter, you can order a copy from Dermal at the address below. Alternatively, the Chapter is available to download from the Dermal website www.dermal.co.uk within the Healthcare Professional Resources section.

RESOURCES FOR MANAGING ECZEMA AVAILABLE FROM DERMAL

TRIAL PACKS – Topical treatments are literally worn on the skin of the patient. What feels good for one patient may not be acceptable to another, especially when it comes to emollients, which tend to be used for long periods and involve large areas. To assist with patient compliance, trial packs are available on request to healthcare professionals.

PATIENT EDUCATION – To encourage better understanding of the condition and to explain how treatments should be applied for best results, a fun happy families card game is available, designed for children from 5 years of age. Similarly, pads of patient information leaflets are available for patients suffering from eczema and dry skin.

To request a supply of any of the above items, contact Dermal at the address below. The patient information leaflets are available to download from the Patient Resources section of the Dermal website www.dermal.co.uk.

SPONSORED BY DERMAL LABORATORIES, TATMORE PLACE, GOSONORE, HITCHIN, HERTS SG4 7QR, UK.

TEL: (01462) 458866.

WWW.DERMAL.CO.UK
QUESTIONS

1. What % of atopic children remit clinically by age 16?
   
   ☐ 25%  ☐ 50%  ☐ 75%  ☐ 100%

2. The fundamental pathogenesis of eczema is thought to be due to a malfunction of which protein?

3. What is 'reverse pattern' eczema and what is its significance?

4. Why are bacterial 'superantigens' important in the causation of eczema?

5. What is 'tachyphylaxis'?
6. What is the prevalence of hand eczema in the population?

☐ 1%  ☐ 2%  ☐ 5%  ☐ 10%

7. Is breast feeding protective in the prevention of atopic eczema?

8. Why should we ‘beware the unilateral eczema’?

9. According to the BNF, what amount of emollient cream/ointment should optimally be applied to the trunk of an adult with significant eczema in a single week?

☐ 200g  ☐ 300g  ☐ 400g  ☐ 500g

10. Which age group does pompholyx eczema most commonly affect?
11. What did I find useful about the learning module on ‘The Eczemas’?

12. Having reflected on this module, how might my practice change in managing eczema?
ANSWERS (PLEASE TURN UPSIDE DOWN)

QUESTION 5.
Answer: The clinical observation that a topical steroid is more active at the beginning of treatment than later on.
Ref page 10
"Tachyphylaxis – patients often observe "my skin seems to have got used to my steroid cream." This can be partially explained by the concept of tachyphylaxis; the clinical observation that a topical steroid is more active at the beginning of treatment than later on. To achieve the same effect, the patient may need to apply the steroid after ever shorter intervals. Alternatively, switching to another steroid preparation of similar potency for a short period can be a useful manoeuvre, resisting the temptation to use even more potent topical preparations. This, however, is not evidence based!"

QUESTION 6.
Answer: 2%.
Ref page 15
"Allergic/irritant dermatitis/eczema – these conditions most commonly affect the hands and cannot be easily differentiated; indeed, they may often co-exist. There is an equal incidence in men and women. Hand eczema affects 2% of the population at some time."

QUESTION 7.
Answer: Breastfeeding may provide partial protection against atopic eczema in infants.
Ref page 10
"Breastfeeding – this may provide partial protection against atopic eczema in infants where a history of atopic eczema exists among first degree relatives. The benefits, however, of maternal dietary manipulation remain unclear. As regards milk substitutes, there has been benefit demonstrated for high risk infants with the introduction of milk hydrolysate formula but no such benefit demonstrated for soya milk. Early weaning may also be associated with the increased incidence and severity of eczema."

QUESTION 8.
Answer: 'Unilateral' eczema may be fungally mediated.
Ref page 4
"Beware also the presentation of 'unilateral' eczema, as this may be fungally mediated. Diagnosis can be further complicated by the misapplication of topical steroids altering the morphology, so called 'tinea incognito'."
Ref page 19
Teaching points: "1) Beware unilateral eczema. Eczema is characteristically a symmetrical disease – you may be dealing with fungal infection. If in doubt, scrape!

QUESTION 9.
Answer: 400g.
Ref page 7
"…too often topical treatments are provided in 'homeopathic' quantities. For whole body application, adults require approximately 500ml and children 250ml weekly. For adults 'whole body' cover requires 30g of ointment or 20g of cream for a single application."
We do not expect our patients to troop back to the surgery every week or so for maintenance drugs for blood pressure or diabetes, and nor should they have to for their topical medications. Suboptimal prescribing leads to frustration and disillusionment, resulting in suboptimal clinical outcomes.

QUESTION 10.
Answer: Young adults.
Ref page 14
"Pompholyx – a distinctive pattern of eczema selectively affecting the thicker skin of the palms of the hands (cheiro-pompholyx) and/or the soles of the feet (podo-pompholyx). There is often no background of atopy. This can occur at any age but most especially young adults; there is no sexual predominance."

*Ref. BNF 59 March 2010
Based on adult twice daily application for 1 week. NB These recommendations do not apply to topical corticosteroids.

EMOLLIENT WEEKLY USAGE GUIDELINES*

<table>
<thead>
<tr>
<th>Area</th>
<th>Frequency</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face</td>
<td>100ml</td>
<td>1x/week</td>
</tr>
<tr>
<td>Both Hands</td>
<td>200ml</td>
<td>1x/week</td>
</tr>
<tr>
<td>Scalp</td>
<td>200ml</td>
<td>1x/week</td>
</tr>
<tr>
<td>15-25g</td>
<td>100ml</td>
<td>1x/week</td>
</tr>
<tr>
<td>Groins/Genitalia</td>
<td>100ml</td>
<td>1x/week</td>
</tr>
<tr>
<td>15-30g</td>
<td>50-100g</td>
<td>1x/week</td>
</tr>
<tr>
<td>Both Arms or Both Legs</td>
<td>200ml</td>
<td>1x/week</td>
</tr>
<tr>
<td>Trunk</td>
<td>500ml</td>
<td>1x/week</td>
</tr>
<tr>
<td>25-50g</td>
<td>25-50g</td>
<td>1x/week</td>
</tr>
<tr>
<td>Face</td>
<td>15-25g</td>
<td>1x/week</td>
</tr>
</tbody>
</table>

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ANSWERS

QUESTION 1.
Answer: 75%.
Ref page 1
"Atopic eczema is from the Greek a-topos, meaning alien, and eczema, meaning to boil out. It is a very significant problem involving up to 15 - 20% of children by the age of 7 and 2 - 10% of adults. Consequently, the physician is very often not only dealing with the patient but the parents as well! Optimistically, however, the majority of childhood eczema improves or resolves by adulthood with reported clearance rates of 65% by age 7 and 74% by age 16.

There remains, however, an estimated 11,000 adults with significant atopic eczema in the UK."

QUESTION 2.
Answer: Filaggrin.
Ref page 3
"The aetiology of eczema, however, remains unclear but is generally considered to be a complex interplay between immunological, genetic and environmental factors. However a key factor appears to be a deranged epidermal barrier function due to malfunction of the protein, filaggrin. This protein acts in analogous building terms to the mortar that holds the bricks together; if it is deficient, the result is the equivalent of a dry stone wall with cracks and imperfections allowing the ingress of exogenous agents such as allergens and micro-organisms triggering a pathological immune cascade. This "building bricks" analogy can often be helpful in explanation of the vital role of emollients as supplementary "mortar" glueing the epidermal "bricks" together!"

QUESTION 3.
Answer: In 'reverse pattern' eczema involvement of the extensor rather than flexor surfaces predominates and is said to be associated with a poorer prognosis.
Ref page 2
"Be aware also that in dark skinned ethnic groups, eczema can most commonly affect extensor surfaces or present in a discoid or follicular pattern. Post inflammatory pigmentary disturbance is also a much greater issue." Ref page 3

There are a few broadly predictive factors. The previous family history may give some insight into the suspected severity. Early onset (under 3 months of age) and the presence of 'reverse pattern' eczema where the involvement of extensor rather than flexor surfaces predominate, are both said to be associated with a poorer prognosis. The principle of management should be "acceptable" quality of life until remission."

QUESTION 4.
Answer: Bacterial 'superantigens' are proteins that act as potent immunostimulators releasing a cascade of inflammatory mediators into the skin.
Ref page 5
"The skin should form an effective barrier to the environment. This is compromised in atopic eczema due to, what I explain rather simplistically, as a reduction of natural moisturisers, leading to dryness, microfissuring and the ingress of contaminants and allergens, 'dirt and germs', resulting in inflammation and infection and the inevitable consequence of the itch/scratch/damage cycle."

"The patient/parent must be able to confidently recognise the stage of the eczema. Is it dryness alone, dryness plus inflammation, dryness, inflammation and infection? (See slides on page 1). It has been recognised as long ago as 1955 that atopic eczema improves with antibiotics even in the absence of overt infection. Skin bacteria, most particularly Staphylococcus aureus, are present in much greater numbers on atopic skin. Staphylococcus is not a customary member of the cutaneous microflora with the exception of the perineum. The bacteria provoke an immune mediated response due to the production of so called 'super antigens'. These are proteins that act as potent immunostimulators releasing a cascade of inflammatory mediators into the skin."

FURTHER SKIN DAMAGE
ANTIMICROBIAL ACTS HERE
EMOLLIENT ACTS HERE
SCRATCH
ITCH
DRY SKIN
ATOPIC ECZEMA
WATER LOSS FROM EPIDERMIS
STAPH. AUREUS COLONISATION
EXACERBATION OF THE ECZEMA
BREAKING THE ITCH SCRATCH VICIOUS CIRCLE

ANSWERS
Dermol knocks out Staph...

...and soothes itchy eczema

The Dermol family of antimicrobial emollients – for patients of all ages who suffer from dry and itchy skin conditions such as atopic eczema/dermatitis.

- Specially formulated to be effective and acceptable on sensitive eczema skin
- Significant antimicrobial activity against MRSA and FRSA (fusidic acid-resistant Staphylococcus aureus)\(^1\)
- Over 10 million packs used by satisfied patients\(^2\)

Dermol\(^\text{®}\) 200 Shower Emollient and Dermol\(^\text{®}\) 500 Lotion Benzenonium chloride 0.1%, chlorhexidine dihydrochloride 0.1%, liquid paraffin 2.5%, isopropyl myristate 2.5%, Dermol\(^\text{®}\) Cream Benzenonium chloride 0.1%, chlorhexidine dihydrochloride 0.1%, liquid paraffin 10%, isopropyl myristate 10%.

Uses: Antimicrobial emollients for the management of dry and pruritic skin conditions, especially eczema and dermatitis. Dermol Cream Adults, children and the elderly. Apply direct to the skin or use as soap substitutes.

Dermol\(^\text{®}\) 600 Bath Emollient Benzenonium chloride 0.5%, liquid paraffin 25%, isopropyl myristate 25%.

Uses: Antimicrobial bath emollient for the management of dry, scaly and pruritic skin conditions, especially eczema and dermatitis. Dermol 600 Bath Adults, children and the elderly. Add to a bath of warm water. Soak and pat dry.

Contra-indications, warnings, side-effects etc: Please refer to SPC for full details before prescribing. Do not use if sensitive to any of the ingredients. Keep away from the eyes. Take care not to slip in the bath or shower.

References: