Complications of emollient use

- Some formulations contain potential skin sensitisers such as lanolin, preservatives, fragrances and sodium lauryl sulphate.
- Ointments contain fewer potential irritants than creams and lotions.
- Risk of slippery skin and surfaces when using soap substitutes.
- Potential fire hazard with paraffin-based emollients in contact with dressings or clothing as they may be easily ignited by a naked flame.
- The use of ointments may exacerbate acne. The risk of folliculitis can be reduced if the patient applies the emollient in the direction of hair growth.

Benefits of emollient use

- Improve the hydration, suppleness and appearance of dry skin.
- Restore skin barrier function thus reducing susceptibility to infection, irritants and allergens.
- Regular use of suitable quantities of emollients will help prevent flare ups of eczema.
- Appropriate use may reduce the need for topical corticosteroids in atopic eczema.
- Improved well-being of the patient. Severe dryness and inflammation can be distressing for the patient and impact on their wellbeing and confidence.

Emollients and Soap Substitutes for Dry Skin Conditions

<table>
<thead>
<tr>
<th>Pharmaceutical form of emollient</th>
<th>Green Status</th>
<th>Preferred products</th>
<th>1st line choice</th>
<th>2nd line choice</th>
<th>Products not recommended for prescribing (similar to preferred product)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ointments</strong></td>
<td>Very greasy</td>
<td>Ointments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Greasy ointments</strong></td>
<td></td>
<td>Zeroderm® ointment</td>
<td></td>
<td></td>
<td>Epaderm® ointment, Hydrogel® ointment, Thirty3® ointment</td>
</tr>
<tr>
<td><strong>Rich cream</strong></td>
<td></td>
<td>Zeroquent® cream</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Creams and gels</strong></td>
<td></td>
<td>Aquamax® cream</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gels</strong></td>
<td></td>
<td>Zerodouble® gel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lotions</strong></td>
<td></td>
<td>Not recommended</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Preparations containing urea**

| Preparations containing urea | Aquadrate® cream (urea 10%) | Hydromol Intensive® Cream (urea 10%) | Balsam cream | Balsam® Plus cream | Calamine® cream | Dermatix® Dry Heel Balm® | Excen® Intensive cream | Flexitol® Heel Balm | Gelsitters® cream |

**Suitable quantities of dermatological preparations to be prescribed for specific areas of the body**

<table>
<thead>
<tr>
<th>Area affected</th>
<th>Face</th>
<th>Both Hands</th>
<th>Scalp</th>
<th>Both arms or legs</th>
<th>Trunk</th>
<th>Groin &amp; genitalia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creams and ointments</td>
<td>15-30g</td>
<td>25-50g</td>
<td>50-100g</td>
<td>100-200g</td>
<td>400g</td>
<td>15-25g</td>
</tr>
</tbody>
</table>

The table above suggests suitable quantities to be prescribed for an adult for a minimum of twice daily application for one week.

The most important factor when selecting an emollient is to find one that the patient will use. The emollient of choice is the least expensive one that is effective, and which the patient finds acceptable and is prepared to use on a regular basis.

Which Emollient?

- Patient preference - acceptability and tolerability to patient, ease of application, product consistency.
- Type of dry skin condition and past history.
- Previous products used and their efficacy and tolerability.
- Severity of dry skin condition: greasy ointments achieve better occlusion than cream-based emollients.
- Intended use of product - leave-on emollient, soap substitute or both; different emollients for different parts of the body (e.g. greasier product for limbs, lighter product for face).
- Emollient or lipid content (fats, waxes, oils).
- Excipients that may be potential sensitisers.
- Safety issues - fire hazard with paraffin-based emollients; soap substitutes may make surfaces slippery.
- Cost.
- Container - product accessible to patient; can patient use a pump dispenser.
Emollients and Soap Substitutes for Dry Skin Conditions

Safety considerations

Patient advice

Finding the right emollient - Patient response to emollients varies. The initial supply of emollient should be a small pack for the patient to try. If this suits them, a larger quantity can then be prescribed. If unsuitable, they should be encouraged to try another product.

Apply liberally and frequently

- Gently smooth the emollient onto the skin in the direction of hair growth. Do not rub in.
- The frequency of application may vary depending on the condition of the skin. For very dry skin, application every 2-3 hours would be considered normal.

Washing

- Avoid using soaps, detergents and bubble bath. Use a soap substitute instead.
- Gently dry the skin after washing and apply a leave-on emollient while the skin is moist. Take care if using emollients when bathing or showering as they may make the skin and surfaces slippery.

Fire hazard with paraffin-based emollients

- Emollient ointments in contact with dressings or clothing may be easily ignited by a naked flame, particularly when applied to large areas. Keep away from fire or flames and do not smoke when using these preparations.

Hygiene

- Don’t share your emollient products or towels with others. If using both, ensure the patient knows which is which.
- Emollients should be applied sparingly often for limited periods; emollients should be applied frequently and liberally.

Aqueous Cream BP

The use of Aqueous Cream BP as a leave-on emollient or soap substitute is not supported due to its poor emollient properties and tendency to cause irritation reactions. It was originally formulated as a soap substitute and not as a leave-on emollient. It has a high water content (69%) thus making it a less effective emollient for those with dry skin. Its use as a leave-on emollient may increase the risk of skin reactions, particularly in eczema. NICE does not recommend the use of Aqueous Cream BP as a leave-on emollient for children with eczema.

Whilst its formulation is not directly comparable to Aqueous Cream BP, Aquamax® cream offers the following advantages over Aqueous Cream BP:

- It contains 33% more emollient than Aqueous Cream BP.
- It does not contain the detergent, sodium lauryl sulphate, a potential skin irritant.

Parabens (p-hydroxybenzoic acid esters)

Parabens are employed in many cosmetic and skincare preparations and act as preservatives. They exhibit protection against a broad range of microorganisms. In 2011 the Danish government banned the use of 4 out of 6 the parabens used in products and restricted the use in the remaining 2 – methyl and ethyl paraben. In light of this and an absence of definitive human risk analysis, it was decided to consider first, those preparations that were free of these additives.

Emollients and Soap Substitutes

A leave-on emollient is a substance whose main action is to occlude the skin surface and to encourage the build up of water in the stratum corneum. Leave-on emollients soothe, soften and hydrate the skin and are suitable for patients of any age with a dry skin condition such as:

- Dry and scaling skin disorders such as eczema, contact dermatitis, psoriasis, ichthyosis.
- Dry skin conditions caused by exposure to drying products or extreme environmental conditions. Dry or itchy skin associated with ageing.
- A soap substitute is used instead of ordinary soap products and is non-irritant and non-drying to the skin.

Products that are non-preferred and not encouraged to be prescribed

<table>
<thead>
<tr>
<th>Emollient Name</th>
<th>Brand Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epaderm® ointment</td>
<td>Diprobase® cream</td>
</tr>
<tr>
<td>Hydromol® ointment</td>
<td>Doublebase® gel</td>
</tr>
<tr>
<td>Thirty:30® ointment</td>
<td>Doublebase® Dayleve gel</td>
</tr>
<tr>
<td>Unguentum M* cream</td>
<td>Isopropyl myristate 15%/liquid paraffin 15% gel</td>
</tr>
<tr>
<td>Aqueous Cream BP</td>
<td>Balneum® cream</td>
</tr>
<tr>
<td></td>
<td>Balneum® Plus cream</td>
</tr>
<tr>
<td></td>
<td>Calmurd® cream</td>
</tr>
<tr>
<td></td>
<td>Dermatonics Once Heel Balm*</td>
</tr>
<tr>
<td></td>
<td>E45® Itch relief cream</td>
</tr>
<tr>
<td></td>
<td>Eucerin® Intensive cream</td>
</tr>
<tr>
<td></td>
<td>Flexitol® Heel Balm</td>
</tr>
<tr>
<td></td>
<td>Nutraplus® cream</td>
</tr>
</tbody>
</table>

References

5. Monthly Index of Medical Specialities. August 2012

Guideline developed by Sanjeev Sudera (NWS CCG) and Clare Curran (G&W CCG)

To be reviewed April 2017