

Emollient packs: providing choice in dermatology

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Patients who attend the dermatology outpatient clinics at the North Tees and Hartlepool NHS Trust are managed by consultants who visit from the local tertiary hospital. The trust comprises two sites, University Hospital of North Tees (UHNT) and University Hospital of Hartlepool. Dr Andrew Carmichael is one of the four dermatologists who cover Teesside, and he holds regular dermatology outpatient clinics at UHNT.

Over 10 years ago, conscious that compliance with many topical therapies is poor in dermatology patients, the trust decided to try to improve the usage of the most commonly prescribed group of topical therapies - emollients. A large proportion of patients seen in dermatology clinics have dry, scaly or fissured skin, often as a result of eczema or psoriasis. Affected skin can be irritable or painful and is frequently less pliable, thus restricting function. All these patients can be helped by an emollient.

Andrew Carmichael, with the support of the dermatology team and local pharmacy departments, began to introduce emollient packs to try to improve compliance with emollients. They have been well received by skin patients across Teesside and have become a core element of our dermatology armamentarium.

Pathophysiology

The outermost layer of the epidermis is known as the stratum corneum. It acts as a protective barrier against physical and chemical attack from the environment. It is also important for preventing water loss through the skin. Once this layer is damaged there is the potential for irritants, such as soap and detergents, allergens and bacteria, to penetrate the skin and give rise to conditions such as eczema and impetigo. Damage to the stratum corneum also causes the skin to become xerotic (dry), scaly and taut and can result in painful fissures.

Emollients

Emollients are indicated for all dry or scaly skin disorders. They are used to improve the condition of damaged skin by forming an oily layer over the skin, both to protect and reduce

evaporation and make the skin more malleable.

The term emollient is used to describe moisturisers that are applied directly to the skin, bath oils that are added to bathwater and soap substitutes. All are medically inert. Examples of topical moisturisers are creams and ointments.

Creams consist of variable proportions of water and oil. The greater the water content, the easier the preparation is to apply and the more quickly it is absorbed, making creams cosmetically more acceptable to patients. However, they require frequent application, as their effects are short-lived. Unfortunately, the high water content of creams makes them susceptible to bacterial contamination and requires the addition of preservatives. These preservatives can cause irritation and, less commonly, sensitisation, which can exacerbate the established condition.

Ointments are composed of waxes, oils and paraffins. They are inherently greasier than creams and longer lasting. Although this means they can be applied less often, the greasiness can make them messier to apply and cosmetically unacceptable. They contain little water and so do not need preservatives to prevent bacterial contamination of the product.

Patients need to try a variety of emollients so that they can find one that suits the degree of dryness of their skin and fits in with their lifestyle. The correct emollient for a patient is ultimately the one that they will use. For a treatment to be successful, the patient must apply the product regularly and frequently. There are too many variables to enable a "one for all" emollient to be promoted. Such variables include the condition of the patient's skin, environment, characteristics of the product (feel, smell and greasiness), required frequency of application and sensation associated with usage. Products that patients find unacceptable to use will result in treatment failure due to noncompliance. As stated by the Skin Care Campaign, emollients are "worn" like cosmetics, and therefore the patient choice aspect is particularly important.

Emollient packs

To overcome reluctance to use a prescribed emollient, the dermatology team on Teesside began to develop a scheme in 1994 to allow patients to test a range of emollients at home. The service was extended to the North Tees & Hartlepool Trust the following year. Initially it was noted that there was a slight variation between the packs at the two hospital sites. Agreement was reached to standardise the contents so that the purchase of the stock and assembly of the pack was unified throughout the trust. The scheme has been in operation throughout most of Teesside for the past decade.

The process begins with the decision to prescribe a patient an emollient. An "emollient pack" is prescribed together with other dermatological treatment required. The prescription is dispensed from the hospital's outpatient pharmacy. The pack is assembled in the pharmacy's manufacturing unit and contains nine different products ranging from a simple aqueous cream up to a greasy ointment (see Figure 1). The patient is provided with approximately 100g of each emollient, depending on the formulation and pack size. Included in the pack is a questionnaire that lists the products supplied (see Figure 2). The questionnaire was designed to be as simple as possible, to maximise response. Alongside each product is a box in which the patient is asked to place a tick to denote the emollient that they found most acceptable to use (one only). There is also a comments section in which the patient is asked to state what they found good and bad about each of the emollients they have tried (see Box 1). For children with atopic eczema, who are the largest group of patients prescribed emollient packs, it is often the parents or carers who complete the questionnaire. Having

tried all of the products and made a choice, patients are asked to return the form to Dr Carmichael, either at their next clinic visit or by post. With their GP's agreement, they will subsequently be prescribed the product that was their first choice.

It may be that some patients have a site or time-preferred emollient (eg, a greasier preparation for hidden sites and nighttime use, and a less greasy preparation otherwise). Equally, their preferences may change over time depending on disease activity, environmental conditions, seasonal variations and the natural ageing process. Patients will then require a further emollient pack to retest their current preference.



Figure 1
The emollient pack contains nine products, ranging from a simple aqueous cream up to a greasy ointment

Box 1. Examples of comments from questionnaires

- "Light, easily applied, nongreasy, cooling effect. Smells unpleasant, but who cares."
- "Fantastic result with skin smoother and sore areas gone. Brilliant!"
- "Light, but longlasting. Please can we have this by the gallon."
- "Brilliant moisturiser. Great to use at night. Very claggy."
- "Like putting lard on the skin."
- "I really didn't like this. It was too oily and after I put it on I felt sticky."
- "Very greasy. Attracts more dirt. Hard to keep hands clean."
- "Stopped using as developed rash over chest and stomach."
- "Stank. Made skin very hot and uncomfortable. Did not enjoy using this ointment at all."

The questionnaires are regularly reviewed and comments noted. A selection of the types of comments received is listed in Box 1. Every couple of years the two least popular products are removed from the pack and replaced by two new products. The new products are appraised through the trust's Drugs and Therapeutics Committee, to which an application for formulary status is made. The appraisal is done by the Formulary Pharmacist, Barbara Dean. It is noteworthy that every year, since its introduction 10 years ago, Aveeno Cream (Johnson & Johnson) has been the patients' most popular emollient. Aqueous cream and Epaderm (Medlock) are the only other current items that were among the original seven products.

QUESTIONNAIRE – EMOLLIENT STARTER PACK

Once you have tried each of the emollients (moisturisers) please tick **JUST ONE** box to show which you liked the most.

Please complete the comment section to say what the good and bad things are about each of the emollients.

DESCRIPTION	1 ST CHOICE	COMMENT
Aqueous cream		
Aveeno cream		
Cetraben cream		
Diprobase cream		
Doublebase cream		
Epaderm ointment		
Hydromol ointment		
Oilatum cream		
Eucerin (urea 10% cream)		

Please return this form either at your next clinic visit or by post to:

Dr. Andrew J Carmichael
Consultant Dermatologist
University of North Tees
Hardwick
Stockton-on-Tees
TS19 8PE

Many thanks for your help.

Figure 2.
Emollient pack questionnaire

By involving the patient in the decision process, compliance with emollient therapy is undoubtedly improved and the patient's skin condition is more effectively managed.

Box 2. Summary

Where were we?

- Compliance with emollient treatments was poor
- Patients were not involved in choosing the emollients that they were to use

Where are we now?

- Patient/carers are involved in the decision-making process
- Patient/carers have control over the products used, allowing them to manage their disease
- Simple questionnaire increases chance of receiving a response
- List of products is regularly reviewed and updated to keep choice contemporary
- Comments on products recorded for patient's and dermatology team's feedback
- Teesside-wide implementation offers all local patients the same standard of treatment

Resources

National Eczema Society

W:www.eczema.org

Skin Care Campaign

W:www.skincarecampaign.org

Dermatology Online Journal

W:dermatology.cdlib.org

Medscape dermatology

W:www.medscape.com/dermatologyhome

Dermatology.co.uk

W:www.dermatology.co.uk

British Association of Dermatologists

W:www.bad.org.uk