

FINDING THE RIGHT EMOLLIENT – THE AQUAMAX[®] ADVANTAGE

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Lavers, I. Finding the right emollient – The AquaMax[®] advantage, *Dermatological Nursing* 2017, 16(2):42-45

Introduction

This product review discusses AquaMax cream and AquaMax wash, as high quality emollient products suitable for use in eczema, psoriasis and other dry skin conditions, providing essential hydration of the skin. Specifically designed to help soothe and protect, AquaMax products have a high lipid content, offering maximum relief for dry skin and inflammation.

Emollients are non-cosmetic moisturisers that, when applied to the skin, reduce water loss and provides a protective film. Emollients soothe irritated or inflamed skin, relieve itch and when skin is broken, can repair the skin's compromised barrier function. According to the National Eczema Society¹ for those suffering from dry skin conditions such as eczema, emollients are an essential part of daily skincare and can reduce the amount of topical corticosteroids required.

Finding a suitable emollient is a process of trial and error. There is no right or wrong emollient, but it is worth remembering the emollient the patient prefers and applies regularly will have more favourable clinical outcomes. The nurse has a vital role working with the patient to ensure the selection of an emollient that is suitable for them. As emphasised by Wingfield,² healthcare professionals – and in particular those prescribing emollients – are 'best placed' to offer guidance on emollient choices, their function and application. Education is an important factor in enhancing patient/carer concordance. Further education is also recommended for other healthcare professionals in primary care and the community to ensure correct usage, formulation and optimal amounts.

Evidence and rationale for use

The British Dermatology Nursing Group (BDNG) highlight that there is still a lack of good quality clinical trials concerning the use of emollients, but long-term experience supports their efficacy and rationale for use.³ The skin acts as a barrier to the external

environment as well as providing protection for the internal environment. Dryness and inflammation of the skin can lead to loss of its barrier function, thus making it more susceptible to allergens, irritants, pathogens, bacteria and further water loss. Emollients help restore the epidermal barrier by their occlusive effect, thus reducing the likelihood of infection and irritation. For emollients to be effective, patients should frequently apply appropriate amounts. Emollients should form the basis of atopic eczema management and should always be used, even when the atopic eczema is clear, as recommended by NHS Choices online.⁴

The most important factor when selecting an emollient is to find one that the patient will use. The National Institute for Health and Care Excellence (NICE) recommends as a quality standard that "the emollient of choice is the least expensive one that is effective, and one the patient finds acceptable and is prepared to use on a regular basis."⁵

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
- ▶ Severe dryness and inflammation can be distressing for the patient and impact on their wellbeing and confidence.⁶

Pharmacology of emollients and soap substitutes

To appreciate the principles that underpin emollient therapy, it is necessary to understand how the skin maintains its barrier functions. The epidermis generates protective and defensive functions mediated by its unique differentiation end product, the stratum corneum. The top layer of skin cells is the most important function in maintaining the effectiveness of the barrier. Here, the individual cells overlies each other and are tightly packed, preventing bacteria from entering and maintaining the water-holding properties of the skin.

Simple emollients form a protective oily layer on the skin surface and trap moisture, prevents water evaporation which improves skin hydration, helps repair of the stratum corneum and improve skin integrity. 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.

A soap substitute is a gentle soap free cleansing product used instead of ordinary soap products and are non-irritant and non-drying to the skin.

Emollients are the first line treatment for dry skin conditions and are available as creams, ointments, lotions, sprays, foams, gels, bath oils and soap substitutes. They usually contain lipids and work through occlusion, trapping natural moisture in the skin, and/or through a humectant effect, which draws water from the dermis into the epidermis.¹ Cork and Dandy⁷ summarise that the "best" emollient is the one that suits the patient's skin condition and is cosmetically pleasing to them. As a general rule, the drier the skin the greasier the emollient required for greater occlusive effect.

The choice of occlusive emollient depends upon the area of the body, the degree of dryness and scaling of the skin. Lotions are valuable for the scalp and other hairy areas as they permeate through hair to the target site. Cream formulations are used for mild to moderate dryness and are comfortable to use on the face. Creams, lotions and gels are short acting and should therefore be applied frequently (four-six times daily). Ointments are longer acting and prescribed for dry, thick, scaly, hyperkeratotic skin conditions. Many patients find ointments cosmetically unacceptable due to staining and greasiness.⁸

Emollients are often underused, as many sufferers view them as 'moisturisers' and don't appreciate how important they are for treatment and, in particular, prophylaxis of symptoms. An informed patient can enhance participation and responsibility in self-care. This is important to consider as it can be critical to the success of any emollient programme.³

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Numerous emollients are available, with different ingredients, some of which can contain potential irritants that can sensitise the skin, such as sodium lauryl sulphate (SLS), parabens, lanolin and perfumes, which can be irritants or allergens for some people. NICE recommends that unperfumed emollients should be offered to patients. Some formulations are particularly low in sensitisers, making them more likely to be well-tolerated by a wide range of patients.^{3,5,6,9}

When choosing suitable emollients consider:

- ▶ Patient lifestyle and preference - discussing emollient choice with the patient will help improve concordance and sustain therapy
- ▶ Previous emollients – patient may have tried other moisturisers with little benefit
- ▶ Cost – emollients vary greatly in NHS and/or OTC price
- ▶ Prescribing adequate quantities

Section 13.1.2 of the current British National Formulary (BNF)¹⁰ recommends suitable quantities to be prescribed for specific areas of the body. These amounts are usually suitable for an adult for twice daily application for one week.

Ideally, patients should choose a range of emollients – a cream or lotion for daytime, an ointment for bedtime and a soap substitute. This is referred to as 'complete emollient therapy'.^{3,6,11,12}

The AquaMax advantage

AquaMax Cream and AquaMax Wash soap substitute is a first choice for cost effective prescribing, and is now available on the England and Wales Hospital Contract. Available as a high lipid content cream that softens, protects and moisturises dry skin and eczema, AquaMax is free-from SLS, Lanolin, Chlorocresol, Parabens, Isopropyl Myristate, fragrance and colour, and is up to 45% less expensive than other leading emollient cream brands.

Table 1.
Recommended prescribing for the body

Area of body	Creams and Ointments	Lotions
Face	15–30 g	100 mL
Both hands	25–50 g	200 mL
Scalp	50–100 g	200 mL
Both arms or both legs	100–200 g	200 mL
Trunk	400 g	500 mL
Groins and genitalia	15–25 g	100 mL

(BNF online 2017)

The AquaMax range - a complete emollient therapy

AquaMax cream and AquaMax wash consist of simple formulations with a minimum of ingredients to prevent skin reactions. The cream consist of liquid paraffin 8%, white soft paraffin 20%, phenoxyethanol 1%.

The initial supply of emollient should be a small pack for the patient to try and if the emollient suits them, a larger quantity can then be prescribed. If unsuitable, they should be encouraged to try another product. Unfortunately many NHS Trusts are no longer able to provide these trial packs. Alternatively patients are able to request a trial of emollients online or by contacting the manufacturer.



AquaMax – the proof is in the patient response

There is considerable variation in patient response to a particular product. Table 2 below summarises a survey carried out between 6 February 2017 and 26 April 2017, with 1,253 patients interviewed about their overall emollient habits and experience with the AquaMax products. The survey was conducted online, by an independent research organisation and funded by Intrapharm. Respondents of the survey comprised patients who previously requested the AquaMax tester to use on their skin. This is not a published survey, but carried out to support the product information available.

What are the AquaMax advantages?

AquaMax can be used in babies, children and adults, with no age restrictions and is suitable for use during pregnancy and lactation. Unlike many other topical preparations, emollients have few unpleasant side-effects, are usually easy to use and often significantly improve symptoms. AquaMax in particular offers a cosmetically acceptable formulation which has met high patient satisfaction.

With the concept of a total emollient therapy supported by all influential bodies in the UK, AquaMax Cream is specially formulated as a leave-on emollient for softening, protecting and moisturising dry skin.

AquaMax Cream and AquaMax Wash contain no active ingredients, no pharmacological action and there are no absolute contraindications to the use of the AquaMax Cream or Wash other than hypersensitivity to any of the ingredients.

Table 2.

Patient survey

Survey question	Answer
Are you prescribed or do you purchase emollients?	Prescribed 13.9%
	Purchased 65.2%
	Both 20.9%
If purchased what do you look for in an emollient?	Price 39.8%
	Offers 22.6%
	Effectiveness in treating eczema 64.4%
	Other (please specify) 17.4%
How would you rate AquaMax in comparison to your usual emollient?	Poor 1.7%
	Average 15.5%
	Good 82.8%
Has AquaMax helped your skin condition?	Yes 93%
	No 6%
Are you itching less with AquaMax?	Yes 86%
	No 13%
Would you recommend AquaMax?	Yes 96%

1,253 patients took part in this survey

Table 3.

List of excipients in descending order and their function

Excipients	Function
Purified Water Ph. Eur.	Purified water is water that has been mechanically filtered or processed to remove impurities and make it suitable for use, through standards set by the European Pharmacopoeia.
White Soft Paraffin BP	Petroleum jelly, a semi-solid mixture of hydrocarbons, provides skin protection by minimizing friction or reducing moisture loss. It is highly flammable.
Liquid Paraffin Ph. Eur	Medicinal liquid paraffin, also known as paraffinum liquidum, is a very highly refined mineral oil used in cosmetics and for medical purposes. It acts as a barrier and prevent moisture loss from the skin.
Cetostearyl Alcohol	An organic compound used as a thickener and emulsifier with low toxicity
Polysorbate 60	Polysorbates are a class of emulsifiers used to solubilize essential oils into water-based products.
Phenoxyethanol	Phenoxyethanol is used as a preservative for pharmaceuticals

CAUTION: MHRA/CHM update (April 2016): Fire risk with paraffin-based skin emollients on dressings and clothing.¹³

Composition

Table 3 lists the excipients in AquaMax and their purpose.

Size and price matter

AquaMax cream and wash are available in the following sizes and prices:

Basic NHS Price AquaMax Cream 100g tube £1.89, 500g screw top container £3.99, AquaMax Wash 250g tube £2.99, providing efficient prescribing with the

- ▶▶ 100g suitable for handbags, school and handbags and in-flight luggage
- ▶▶ 500g container for regular use to provide sufficient quantities.⁶

For patients paying for prescriptions and not entitled to a prescription prepayment certificate (PPC), AquaMax cream is better value if bought direct, with a RRP £6.99 for 500g.

Prescribing AquaMax could save CCGs up to £300,000 per year, based on the cost saving from prescribing AquaMax over the national emollient cost, averaged per CCG. At £3.99 for a 500g screw-top container AquaMax is much more cost effective than other leading emollients, making it a first choice emollient for cost effective prescribing. It is also available on the England and Wales Hospital Contract.

Key features of AquaMax

- ▶▶ With the same properties as (50:50) this formulation is cosmetically acceptable, preferred over creams - the patient survey shows the patient preferences

- ▶▶ Suitable for babies from birth and also for children. AquaMax is regularly used in children's hospitals nationwide
- ▶▶ Sizes availability/range - 3 sizes in the range - 100g, 250g Wash, and 500g. Available on GP prescription, at all major wholesalers, pharmacy can order and online
- ▶▶ NHS Cost - £3.99 for 500g, £2.99 for 250 wash, £1.89 for 100g
- ▶▶ Over the counter price – RRP £6.99 500g, £5.99, 250g, 3.49 for 100g
- ▶▶ On NHS formularies nationwide
- ▶▶ On NHS England and NHS Wales Hospital Contract

Summary

Emollients soften, smooth and rehydrate the skin, helping to decrease the unpleasant sensations associated with dry skin. They usually contain lipids and work through occlusion, trapping natural moisture in the skin, and/or through a humectant effect that draws water from the dermis into the epidermis. Emollients are safe and effective – a good skin care routine using emollients can soothe, moisturise, and protect the skin.^{1,11,12}

There is considerable variation in patient response to a particular product, thus making it difficult to compare emollients or to predict how much an individual will benefit.

The most important factor in selecting an emollient is to find one that the patient will use. When prescribing emollients, the key to success is considering patient preference and ensuring that the cost effective emollient prescribed fits in with the

individual's lifestyle – thus 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.

Considering all of the above AquaMax Cream and AquaMax Wash offer a quality driven product range to meet requirements and standards in the provision of up to date and cosmetically acceptable total emollient therapy. **DN**

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