

Cost effective prescribing of emollients

Evidence from controlled trials for the effectiveness of emollients in treating skin conditions such as eczema is limited, as is evidence comparing efficacy of different emollients.¹ However, there is general agreement amongst clinicians that emollients have a key role in treating dry skin conditions, including eczema and psoriasis.¹-4

This document is intended to guide cost effective and preferred emollient choice when initiating or changing emollient therapy. Prescribing may involve trialling different emollients (in small quantities) until a suitable preparation that is acceptable to the patient is found.

Recommendations 1-14

- Agree a local list of cost effective emollients with local dermatologists and other key stakeholders.
 These should be a starting point for prescribing suggestions have been made in this bulletin based on cost per 100g of product.
- Choose a cost effective emollient from the suggested list after discussion with the patient in order to
 match choice to patient lifestyle and increase compliance. Patient preference as well as severity of
 condition and site of application should be considered when making a suitable choice.
- Ensure that the indication is a documented dermatological condition. Prescribing of emollients for non-clinical cosmetic purposes is not recommended and should be reviewed.
- Initially, prescribe a small amount of emollient on an acute prescription to gauge suitability to patient.
- Once a suitable emollient is found, prescribe a sufficient amount (see Table 5, page 7) that can be on a repeatable prescription.
- Check sensitivities and previous emollients that have been unsuccessfully tried before prescribing.
- Do not prescribe moisturisers and creams not listed in the Drug Tariff. These are considered to be cosmetic treatments.
- Prescribe a cost effective alternative to soap for the patient to wash with. As with other types of
 emollient, trial a small quantity initially to establish suitability before putting larger quantities on
 repeatable prescriptions.
- Aqueous cream carries a higher risk of causing skin irritation particularly in children with eczema, possibly due to its sodium lauryl sulphate content. Some authorities advise avoiding its use entirely. There are several cost effective leave-on emollients and soap substitutes that can be chosen instead.
- State criteria for using emollients containing antimicrobials to avoid routine use, and avoid long term use. NICE recommend using topical antiseptics as adjunct therapy to decrease bacterial load in children who have recurrent infected atopic eczema. Some specialists recommend that emollients with antimicrobials should only be used when infection is present.
- If emollients containing urea are recommended locally, specify when they should be tried. Urea is a keratin softener and hydrating agent used in the treatment of dry, scaling conditions (including ichthyosis). Urea can cause stinging and irritation for some people, and preparations are generally more costly. It is therefore reasonable to target use to specific groups, e.g. those with scaling skin, or those who have tried other emollients without success.

- Prescribe pump dispensers to minimize the risk of bacterial contamination, when they are available
 for the patient's selected emollient. For emollients that come in pots, using a clean spoon or spatula
 (rather than fingers) to remove the emollient helps to minimize contamination.
- Review repeat prescriptions of individual products and combinations of products with children with atopic eczema and their parents or carers at least once a year to ensure that therapy remains optimal in accordance with NICE guidance.
- Prescriptions for adult patients should generally be reviewed annually, although this may not be
 necessary in very mild conditions, e.g. people with small areas of mild eczema that require minimal
 intervention.

Considerations before prescribing¹⁻¹⁰

- Patient preference, health education and their expectations from treatment are key to compliance. Try small quantities initially, until an acceptable emollient is found. Advise the patient to use the emollient liberally and frequently (at least 2 4 times a day; very dry skin may require application every 2-3 hours).
- Generally the greasier the product the more effective it is as an emollient, as it is able to trap more moisture in the skin. However, greasier emollients can be less acceptable or tolerable.
- Ointments are the greasiest preparations, being made up of oils or fats. They do not usually contain preservatives and may be more suitable for those with sensitivities. However they can exacerbate acne, can cause folliculitis when overused, and they should not be used where infection is present. Emollients should be applied in the direction of hair growth to reduce the risk of folliculitis.
- Creams and gels are emulsions of oil and water and their less greasy consistency often makes them more cosmetically acceptable.
- Lotions have a higher water content than creams, which makes them easier to spread but less
 effective as emollients. They may be preferred for very mildly dry skin, as well as for hairy areas of
 skin.
- Aerosol formulations such as sprays and a mousse are also available. They are generally more costly, but sprays may have a role where application without touching the skin is advantageous.
- Sensitivities to excipients can occur and should be checked before prescribing; excipients are listed in the SPC, plus the BNF indicates the presence of some specific excipients that are associated with sensitisation in topical preparations.
- Some of the emollients in this bulletin are classed as appliances and are listed in part IXA of the Drug Tariff e.g. Cetraben® cream, Epaderm® cream, Hydromol® ointment and products from the Zeroderma range (list not exhaustive). They can be prescribed on the NHS as they are listed in the Drug Tariff.
- A small number of emollients are classed as borderline substances and are only available on NHS
 prescriptions for specified conditions. Products to which this applies are annotated accordingly in the
 tables and figures that follow.
- Warning: Paraffin-based emollients are flammable. Dressings and clothing that have contact with paraffin-based products are easily ignited by a naked flame. Advise patients to keep them away from fire or flames and not smoke when using them. The risk of fire should be considered when using large quantities of any paraffin-based emollient.

Cost effective emollients

Items listed in the tables that follow cost less than £1.15 per 100g/100ml based on the most cost effective (largest) pack size. Products may be removed and other products chosen as part of a local agreement.

Table 1: Suggested emollient lotions

Product name	Most cost effective pack size & cost	Other pack sizes & costs
E45® Lotion	500ml £4.50	200ml £2.40
QV® skin lotion	500ml £5.24	250ml £3.14
Cetraben® lotion	500ml £5.64	200ml £4.00

Chart 1. Cost per 100g/100ml of all emollient lotions (August 2014)

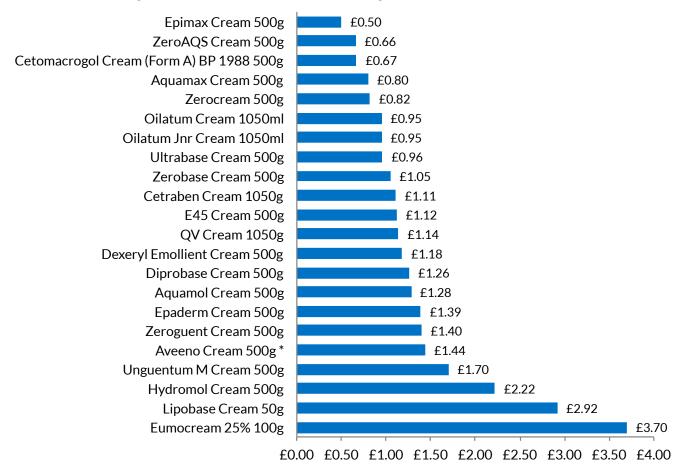


^{*}ACBS: For endogenous and exogenous eczema, xeroderma, ichthyosis, and senile pruritus associated with dry skin

Table 2: Suggested emollient creams

Product name	Most cost effective pack size & cost	Other pack sizes & costs	
Epimax® Cream	500g £2.49	100g £0.75	
ZeroAQS® Cream	500g £3.29	None available	
Cetomacrogol Cream (Form A) BP 1988	500g £3.35	None available	
Aquamax® Cream	500g £3.99	100g £1.89	
Zerocream®	500g £4.08	50g £1.17	
Oilatum® Jnr Cream	1050ml £9.98	150g £3.38, 350g £4.65, 500ml £4.99	
Oilatum® Cream	1050ml £9.98	150g £2.46, 500ml £4.99	
Ultrabase® Cream	500g £4.80	50g £1.40	
Zerobase® Cream	500g £5.26	50g £1.04	
Cetraben® Cream	1050g £11.62	50g £1.40, 150g £3.98, 500g £5.99	
E45® Cream	500g £5.62	50g £1.61, 125g £2.91, 350g £5.17	
QV® Cream	1050g £11.94	100g £2.04, 500g £5.86	

Chart 2: Cost per 100g/100ml of all emollient creams (August 2014)



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Table 3: Suggested gels

Product name	Most cost effective pack size & cost	Other pack sizes & costs
Zerodouble® Gel	475g £4.71	100g £2.25

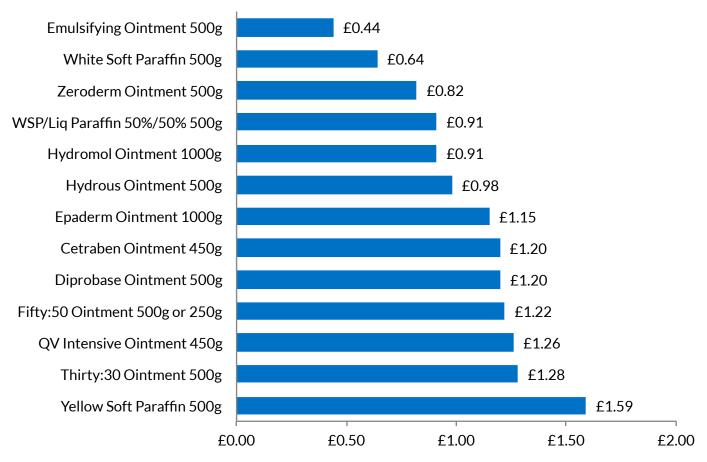
Chart 3: Cost per 100g/100ml for all emollient gels (August 2014)



Table 4: Suggested emollient ointments

Product name	Most cost effective pack size & cost	Other pack sizes & costs
Emulsifying ointment	500g £2.19	None available
White soft paraffin	500g £3.23	None available
Zeroderm® ointment	500g £4.10	125g £2.41
50:50 White soft and liquid paraffin ointment	500g £4.57	None available
Hydromol® ointment	1kg £9.09	125g £2.88, 500g £4.89
Hydrous ointment (also known as 'oily cream')	500g £4.89	None available

Chart 4: Cost per 100g/100ml of all emollient ointments (August 2014)



Emollients with antimicrobials

Use should be targeted and short term. There are no products that cost below the £1.15 per 100ml/100g threshold.

- Dermol® (chlorhexidine hydrochloride 0.1% & benzalkonium chloride 0.1%)
 - » Cream 100g £2.86, 500g pump £6.63
 - » Lotion 500ml pump £6.04
- Eczmol® Cream (chlorhexidine gluconate 1% w/w) 250ml £3.70

Chart 5: Cost per 100g/100ml of all emollients with antimicrobials



Emollients containing urea

Emollient products containing urea are not all interchangeable. The urea content of products varies widely and some contain additional active ingredients such as salicylic acid or lactic acid (keratolytic properties), or lauromacrogols (reputed to reduce itch). Ensure that product(s) selected are indicated for the intended use.

There are no products that cost below the £1.15 per 100ml/100g threshold.

Chart 6: Cost per 100g/100ml urea containing emollients (August 2014)

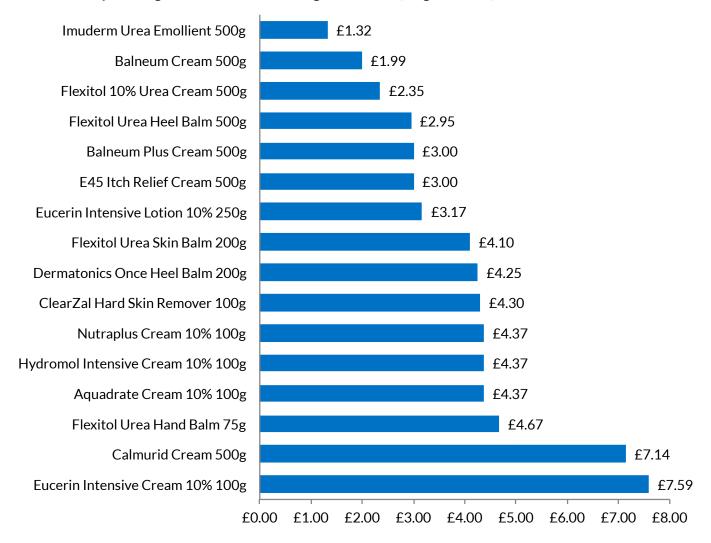


Table 5: Suitable quantities of emollients for prescribing for a week and a month⁵

Body site	Creams or ointments		Lotions	
	One week supply	One month supply	One week supply	One month supply
Face	15-30g	60-120g	100ml	400ml
Both hands	25-50g	100-200g	200ml	800ml
Scalp	50-100g	200-400g	200ml	800ml
Both arms or legs	100-200g	400-800g	200ml	800ml
Trunk	400g	1600g	500ml	2000ml
Groins & genitalia	15-25g	60-100g	100ml	400ml

Bath and shower emollients and soap substitutes^{2-4,6-10,13,14}

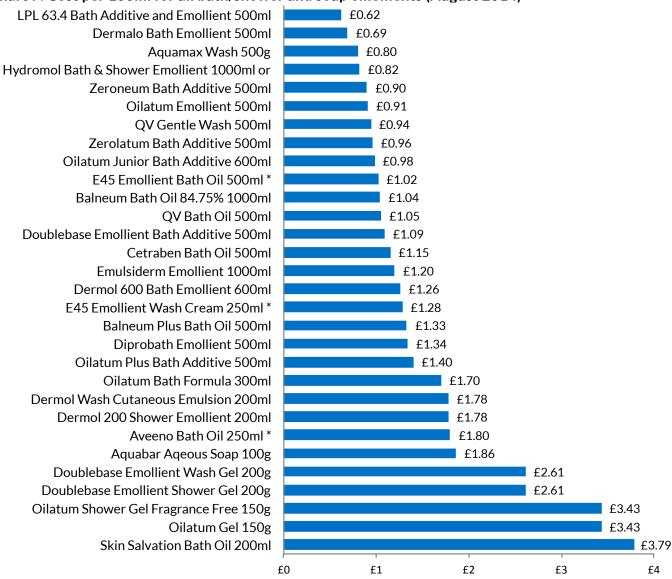
The use of bath and shower emollients is controversial and evidence to inform practice is lacking. It is, however, generally accepted that soap is drying and potentially irritating to skin and is best avoided by those with dry skin conditions. Therefore people with dry skin conditions should be offered an alternative to soap to wash with. This could be either:

- A regular leave on emollient that is also suitable for use as a soap-substitute. Many standard emollients can be used in this way (products that are completely immiscible with water such as 50:50 white soft paraffin and liquid paraffin ointment are not suitable).
- An emollient product designed specifically for washing with in the bath or shower.

Considerations

- Some specialists prefer to recommend the use of a standard emollient as a soap substitute (e.g. by applying it to the skin before bathing/showering then rinsing it off), as they believe this provides better moisturisation of the skin.
- As with other types of emollient, patient acceptability is likely to be key in finding a suitable product, so it may be preferable to offer a range of options (a 'preferred first line' product or method can be stated if desired).
- There are a number of cost effective options for both of the above approaches to avoiding soap use.
- Bath and shower emollients is a generic term for a diverse group of products. Some are more suited
 to being used for washing, whereas others, such as non-dispersing bath oils are aimed at depositing
 oil on the skin. Some also contain antimicrobials, and the same principles of targeted, short term use
 apply to these products as apply to leave-on emollients with antimicrobials. Ensure that products
 selected are appropriate for their intended use.
- Regardless of the type of product the person uses to wash with, it should not replace the regular use
 of a leave-on emollient. Advise people to continue using standard emollients in addition to any bath/
 shower product or soap substitute used.
- Warn patients that extra care is required when emollients are used in the bath or shower as they make surfaces slippery.





^{*}ACBS: For endogenous and exogenous eczema, xeroderma, ichthyosis, and senile pruritus associated with dry skin

National cost savings (Based on ePACT data Aug 2014 - Oct 2014)

The national annual spend on emollients is nearly £116.2 million. If all the preferred choices were prescribed, the potential annual cost saving across England would be approximately £14.2 million.

Table 7: National annual cost savings per type of emollient (based on ePACT data Dec 2014 - Feb 2015)

Emollient type	12 month cost avoidance on switch to preferred (suggested first line choices) emollient
Lotions	£340,548
Creams	£9,017,500
Ointments	£1,719,484
Gels*	£2,136,842
Not in BNF/Drug Tariff**	£993,080
Total	£14,207,355

^{*}Savings based on 17.5% reduction in spend (Zerodouble gel is on average approximately 17.5% cheaper than the alternative emollient gels which form almost the whole emollient gel spend in the Dec 2014 - Feb 2015 ePACT data) **Savings based on nil prescribing

The national annual spend on bath and shower emollients is significant at nearly £23.1 million. It is unrealistic to project savings based on discontinuing all prescribing, as people with dry skin conditions require alternatives to soap. Savings may be made by directing prescribers to the more cost effective options, i.e. cost effective regular emollients used as soap substitutes or cost effective bath/shower products that the patient can wash with.

The national annual spend on emollients containing antimicrobials is £9.7 million. These products are generally more costly and savings may be made by ensuring their use is clinically appropriate, i.e. short term and targeted to specific situations.

The national annual spend on emollients containing urea is £8.6 million. These products are generally more costly and savings may be made by ensuring their use is targeted to specific situations such as dry, scaling skin conditions, or where treatment with other emollients has failed. For general first line emollient options there are many other products available at a lower acquisition cost.

In addition to the emollients listed in the BNF and Drug Tariff, preparations not listed in either are also being prescribed. The national annual spend on these products is almost £1 million. These products are not classed as either medicines or appliances. They are classed as cosmetics and therefore should be purchased as part of self care and not prescribed.

The national annual spend on aerosol emollients (sprays and mousse) is £282,700. These products are more costly, but the sprays may offer an advantage in specific situations e.g. where application without touching the skin is advantageous.

Summary

• When prescribing emollients the key to success is considering patient preference and ensuring that the cost effective emollient prescribed fits in with their lifestyle. Regular review of how the patient is getting along with their emollient would also help improve patient compliance and ensure early detection of any issues or infections. Best use of resources can be made by having a range of cost effective options available, and ensuring that products for more specialised use (such as those containing antimicrobials, urea or in spray formulations) are used appropriately.

References

- 1. Hoare C, Li Wan Po A, Williams H. Systematic review of treatments for atopic eczema. Health Technology Assessment 2000;4:(37)
- 2. National Institute for Health and Clinical Excellence (NICE): Atopic eczema in children Management of atopic eczema in children from birth up to the age of 12 years. [CG57] London: National Collaborating Centre for Women's and Children's Health; 2007. Accessed via: http://www.nice.org.uk/guidance/CG57/chapter/1-Guidance Accessed 06/06/2014
- 3. Scottish Intercollegiate Guidelines Network (SIGN). Management of atopic eczema in primary care SIGN no. 125. March 2011. Accessed via: http://www.sign.ac.uk/pdf/sign125.pdf Accessed 06/06/2014
- 4. Eczema atopic, Clinical Knowledge Summary, last revised August 2012. Accessed via: www.cks.nice.org.uk Accessed March 2013
- 5. British National Formulary. London: British Medical Association and The Royal Pharmaceutical Society of Great Britain; Accessed via: https://www.medicinescomplete.com/mc/bnf/current/ Accessed on December 2014 and January 2015.
- 6. Emollient Prescribing Guidelines, NHS Rotherham. Ratified October 2012, review October 2014
- 7. British Association of Dermatologists & Primary Care Dermatology Society. Guidelines on the management of atopic eczema. 2006, reviewed Jan 2010. Accessed via: http://www.bad.org.uk Accessed 10/06/2014
- 8. Penzer R. Best Practice in Emollient Therapy A statement for healthcare professionals. December 2012 Dermatological Nursing 2012;11(4):s1-s19. Accessed via: http://www.bdng.org.uk/documents/EmollientBPG.pdf Accessed 28 July 2014

- 9. National Eczema Society website. Emollients. Accessed via: http://www.eczema.org/emollients Accessed via: <a href="h
- 10. Knott L. Emollients (moisturisers) for Eczema Patient.co.uk website Last checked: 21/02/2012. Accessed via: http://www.patient.co.uk/health/Emollients-(Moisturisers)-for-Eczema.htm Accessed 28 July 2014
- 11. Martindale: The Complete Drug Reference. Urea drug monograph. Accessed via: www.medicinescomplete.com Accessed January 2015
- 12. MHRA Drug Safety Alert. Aqueous cream: may cause skin irritation, particularly in children with eczema, possibly due to sodium lauryl sulfate content. March 2013. Accessed via: http://www.mhra.gov.uk/Safetyinformation/DrugSafetyUpdate/CON254804 Accessed 28 July 2014
- 13. Bath emollients for atopic eczema: why use them? Drugs and Therapeutics Bulletin 2007;45:73-5
- 14. Tarr A, Iheanacho I. Should we use bath emollients for atopic eczema? BMJ 2009; 339:b4273

Additional PrescQIPP resources



Briefing



Data pack



Patient letter

Available here: http://www.prescqipp.info/resources/viewcategory/344-emollients

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