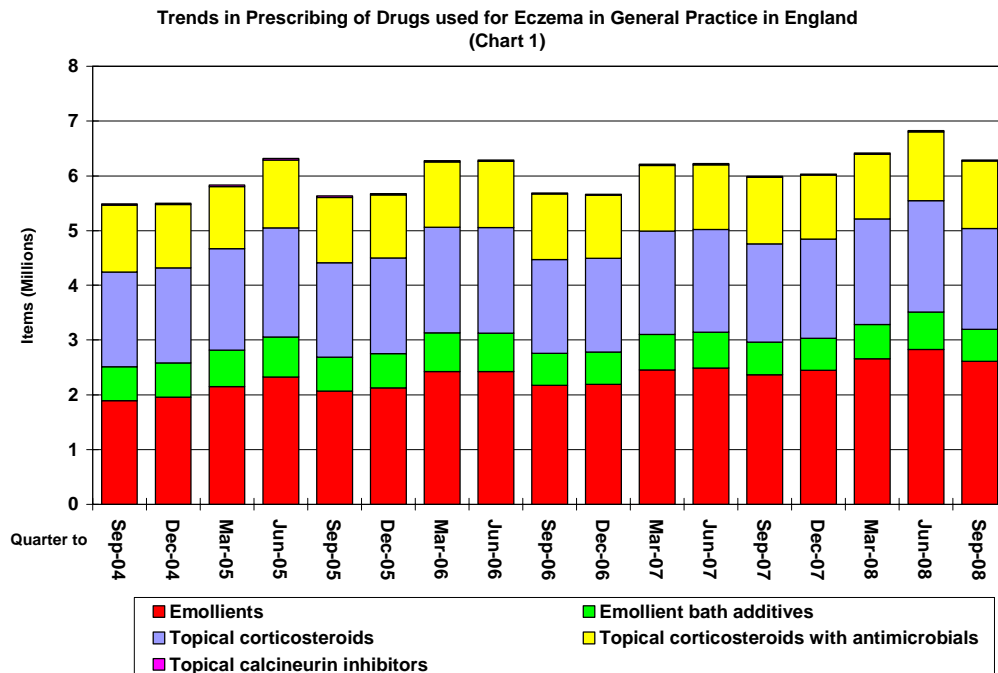


Drugs used for Eczema

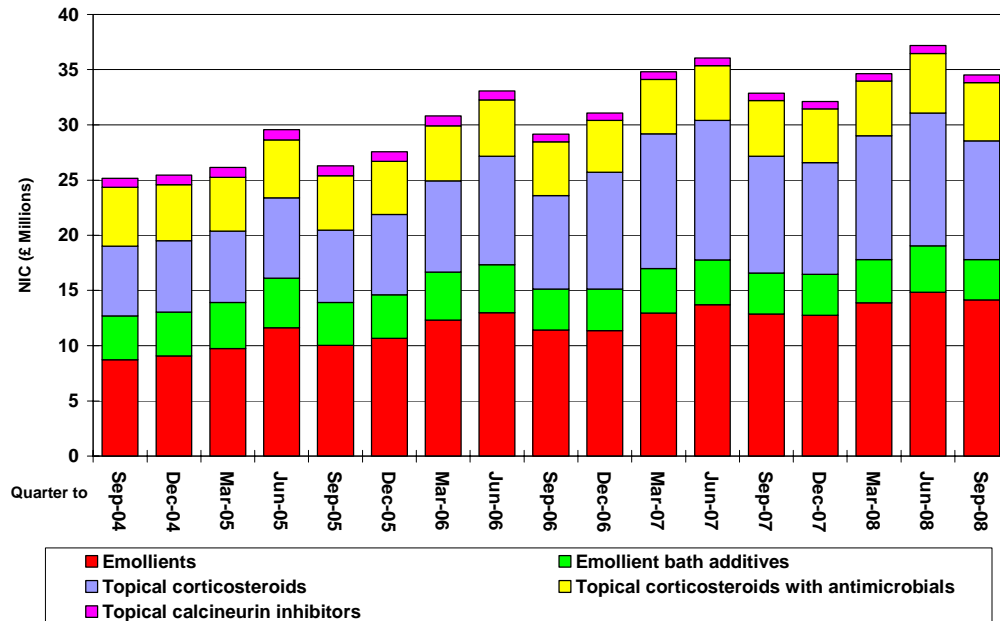
Atopic eczema is a chronic, relapsing, itchy skin condition caused by a reduction in the lipid barrier of the skin which leads to an increase in water loss and a tendency towards dry skin.¹ It accounts for approximately one third of all dermatological consultations in general practice.² Eczema has a strong familial component and it is also strongly associated with other atopic diseases such as asthma and hayfever.^{3,4} Environmental factors such as inhalants (e.g. pollen) and contact allergens (e.g. pet hair) may also act as trigger factors; health professionals should help patients identify these, including irritants (e.g. soap and detergents), skin infections and food allergens.¹ Complications associated with eczema include infection (*Staphylococcus aureus*, herpes simplex, fungal infections) and psychosocial problems (behavioural problems, impaired performance due to lack of sleep, poor self confidence). This review focuses on the recommendations made in the National Institute for Health and Clinical Excellence (NICE) Atopic Eczema in children (birth to 12 years) clinical guideline 2007.¹ Although most of the research into eczema has been carried out in children, in the absence of any authoritative UK guidelines, it is thought that this can be extrapolated to adults.⁵

Emollients and barrier creams

NICE recommends a holistic approach when assessing atopic eczema. A stepped approach is recommended for the management of atopic eczema in children – emollients are the mainstay at every step. There is a lack of high quality evidence from large well conducted randomised controlled trials for the efficacy of emollients but their use is well established. NICE recommends that a choice of unperfumed emollients, based on patient preference, are offered for use every day for moisturising, washing and bathing and their use should be liberal (250-500g per week). This may include a combination of products or one product for all purposes, and they should be used even when the eczema has cleared.¹ The value of bath additives has been questioned.⁶ Chart 1 shows lower prescribing for emollients compared with topical corticosteroids. This could be due to a number of reasons e.g. purchase of emollients over-the-counter or poor compliance. Following the reclassification of some medicinal products that are considered to have no systemic effect on the body, many emollients and barrier creams are now medical devices and must be listed in Drug Tariff Part IX for prescribing on FP10 forms.



Trends in Spending on Drugs used for Eczema in General Practice in England
(Chart 2)



Topical corticosteroids

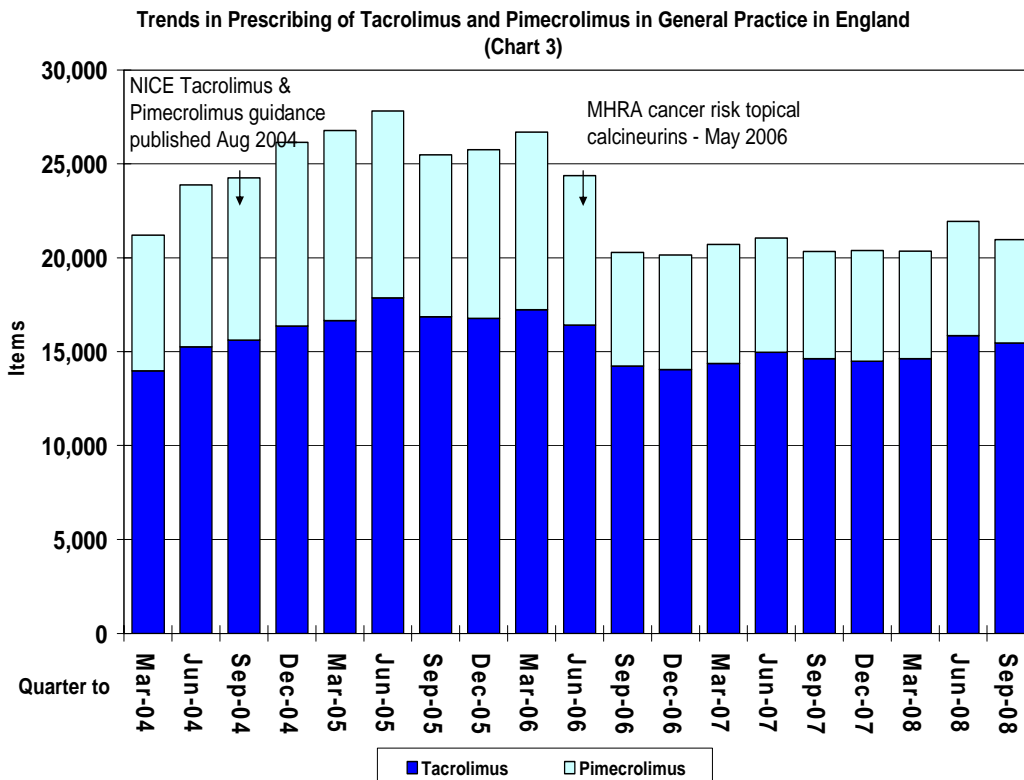
Topical corticosteroids have an anti-inflammatory and immunosuppressant action and thus have an important role in managing eczema flare-ups.¹ In the UK topical corticosteroids are divided into four categories: mild, moderate, potent and very potent. In mild atopic eczema, the use of topical corticosteroids should be introduced, beginning with the mild potency corticosteroids initially. Potent and very potent corticosteroids should not be used where the skin is particularly thin i.e. on the face or neck, or in children aged under 12 months without specialist supervision and should not be prescribed to any child without specialist dermatological advice.¹ The potency of a corticosteroid is not necessarily related to its concentration; it also depends on the esterification of the steroid molecule e.g. hydrocortisone butyrate 0.1% is more potent than hydrocortisone acetate 1%. The clinical effect depends on the potency of the corticosteroid, its concentration and the formulation.¹ Local adverse effects such as skin atrophy, telangiectasia and skin infection may also occur but are usually reversible.⁵ Again, there is a lack of large, high quality clinical trials that have evaluated the use of topical corticosteroids in a way that reflects their use in the UK.¹ Because the risk of adrenal suppression increases with cumulative use, NICE recommends that the face and neck should only be treated with mild potency topical corticosteroids. Severe flares can be treated with a moderate potency product for up to 5 days. Once an eczema flare-up has been controlled, prescribers should consider maintenance treatment for 2 consecutive days per week to prevent flare-up recurring. Where there is more than one suitable corticosteroid (taking into account convenience of use) within the appropriate potency class, the one with the lowest acquisition cost should be chosen.

Topical corticosteroids combined with antimicrobials appear to be no more effective than topical corticosteroid alone.⁵ NICE recommends that oral flucloxacillin or erythromycin are used first-line for the treatment of moderate-to-severe *S. aureus* and streptococcal infections, and topical corticosteroid/antimicrobial combination is reserved for infection in localised areas and used for a maximum of 2 weeks.¹ Although these products are prescribed for conditions other than atopic eczema, chart 1 suggests that this message is still to impact upon prescribing habits where the proportion of topical corticosteroid/antimicrobials, compared with topical corticosteroids alone is high. Prescribing data for the quarter to September 2008 show that 40% of all topical corticosteroid prescribing are for products containing an antimicrobial. The most commonly prescribed being miconazole 2% / hydrocortisone 1% cream (266,000 items) and clotrimazole 1% / hydrocortisone 1% cream (218,000 items) followed by fusidic acid 2% / betamethasone valerate 0.1% cream (203,000 items).

Topical calcineurin inhibitors

The topical calcineurin inhibitors, pimecrolimus and tacrolimus, have an immunosuppressant and anti-inflammatory action. They can only be prescribed by a hospital specialist or GP with a special interest in dermatology and should not be used first-line for atopic eczema of any severity.⁷ Both tacrolimus and pimecrolimus can be used to treat atopic eczema in all skin areas including the head, face and neck (but not mucous membranes) in adults and children over 2 years old. Tacrolimus is licensed to treat moderate to severe atopic eczema, and pimecrolimus for mild to moderate atopic eczema. They should only be used when eczema has not been controlled by topical corticosteroids or where there is a serious risk of important adverse effects from continuing corticosteroid use.¹ Although prescribing is low, cost is high at £692,000 for nearly 21,000 items (chart 2).

The evidence for effect of topical calcineurins has been reviewed by NICE and was found to be lacking in some areas, notably the lack of appropriate comparators i.e. moderately potent topical corticosteroids, and head-to-head comparisons with tacrolimus and pimecrolimus.⁷ In March 2006, the results of a Europe-wide review of the risks and benefits of these products was published which linked their use to increased reports of skin cancers, lymphomas and other cancers. The Medicines and Healthcare products Regulatory Agency (MHRA) reported this review in May 2006 which resulted in a drop in prescribing of these products of 36% for pimecrolimus (quarter to March 2006 compared to quarter to Sept 2006) and 17% for tacrolimus (chart 3). However a full causative effect was not proven and the MHRA concluded that the balance of benefits and risks remains favourable.⁸



Dry bandages, medicated dressings and garments

Either dry bandaging or wet wrap therapy is used to provide occlusion and increase the absorption of emollients and/or topical corticosteroids. However, the evidence to support their use is poor. NICE recommends that localised medicated dressings or dry bandages can be used for the short-term (7–14 days) treatment of flare-up with topical corticosteroids, but should never be used when infection is present.¹ Whole body wrapping should not be used first-line and should only be initiated by a healthcare professional with expertise in its use.

Silk garments have recently been added to Part IX of the Drug Tariff. These products are made from medical grade silk and claim to absorb more moisture than cotton, helping to break the itch-scratch cycle.

Whatever the prescribed treatment regimen, NICE recommends that healthcare professionals educate children and their carers about their eczema, including how often and how much of the treatment should be used, when and how to step treatments up and down, and how to treat infected eczema. NICE has set out referral criteria for severe eczema which should be followed when eczema cannot be controlled in primary care or if there are complications.

Prescribing data (Reporting quarter July-September 08, Index quarter July-September 04)

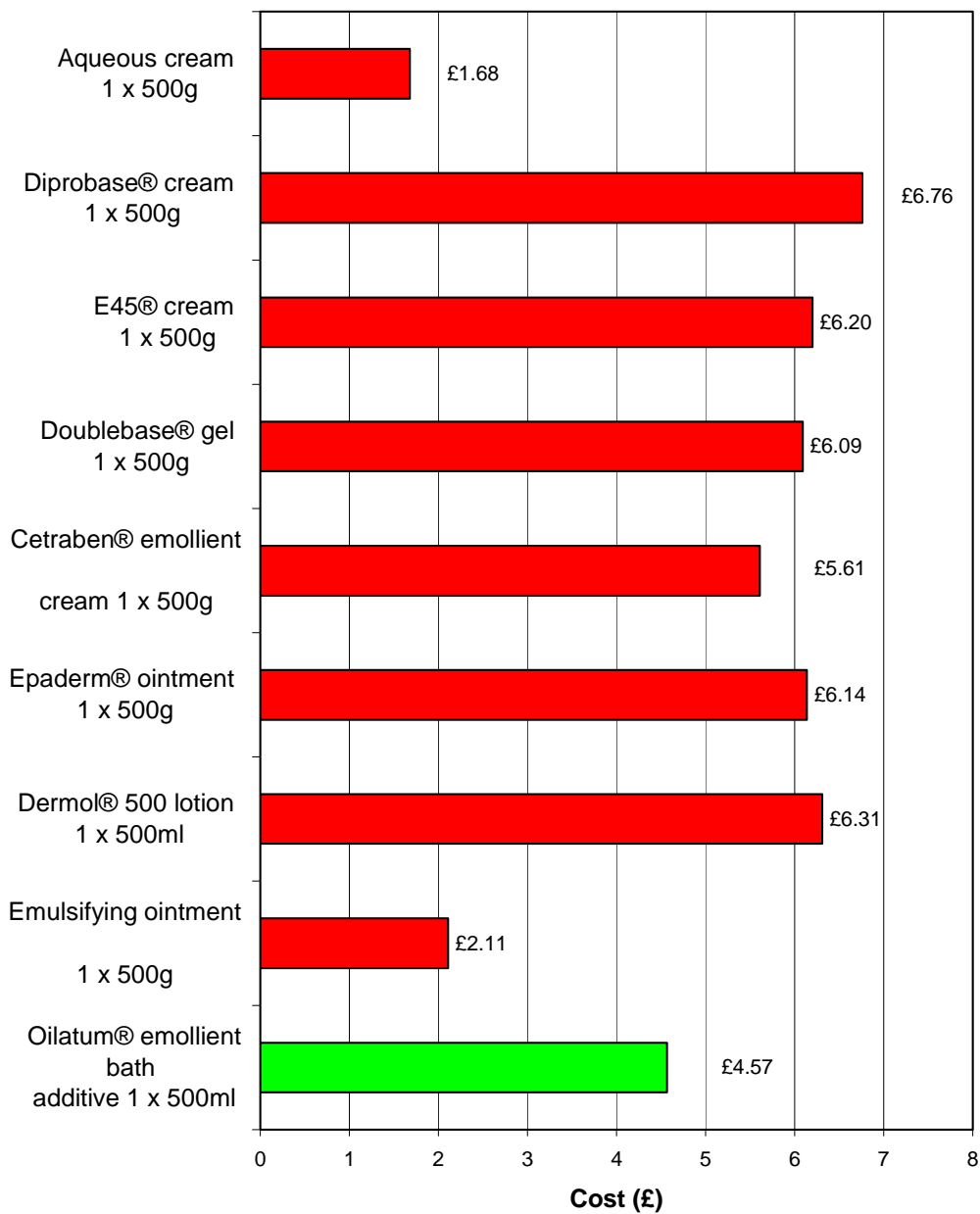
Prescribing of emollients has increased by 38% to 2.6 million items and costs by 62% to £14.1 million. Aqueous cream is most often prescribed with an increase in items of 3% (493,000) whereas its cost has risen 49% to £755,000. Diprobase[®] cream accounts for 351,000 items and £2.5 million (24% and 34% increases, respectively) whilst there are 341,000 items for E45[®] cream (1% decrease) but an increase in cost of 9% to £1.9 million. Use of Doublebase[®] gel has almost trebled to 304,000 items and £1.9 million. Prescribing of emollient bath additives decreased by 5% to 588,000 items and costs fell by 8% to £3.6 million. The most frequently prescribed brand is Oilatum[®] Emollient, 171,000 items, £825,000.

Prescribing of all topical corticosteroids has increased by 4% to 3.1 million items and cost by 37% to £16 million. Prescribing of a topical corticosteroid alone increased by 6% to 1.8 million items, whilst cost increased by 70% to £10.8 million. Prescribing of topical corticosteroids with an antimicrobial has varied by less than 2% (1.2 million items and £5.3 million). At 298,000 items and £1.9 million, hydrocortisone 1% cream is the most commonly prescribed with a 3% increase in items and an eight fold increase in spend. Items and cost of betamethasone valerate 0.1% cream rose by 9% to 216,000 items and by 11% to £559,000.

There are 15,000 items for tacrolimus, costing £526,000, and 5,500 items for pimecrolimus, costing £167,000.

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2. NHS Choices. Eczema (atopic) 2008. [www.nhs.uk/conditions/Eczema-\(atopic\)](http://www.nhs.uk/conditions/Eczema-(atopic)).
3. Wadonda-Kabonda N, Sterne JAC, Golding J et al. Association of parental eczema, hayfever, and asthma with atopic dermatitis in infancy: birth cohort study. *Arch Dis Child* 2004; 89: 917-21
4. National Prescribing Centre. Atopic eczema in primary care. *MeReC Bulletin* 2003; 14. http://www.npc.co.uk/MeReC_Bulletins/2003Volumes/Vol14no1.pdf.
5. CKS Eczema – atopic (*PRODIGY Guidance*). Clinical Knowledge Summaries. 2008 www.cks.library.nhs.uk/eczema_atopic
6. DTB Bath emollients for atopic eczema: why use them? *Drug & Therapeutics Bulletin* 2007; 45(10): 73-5
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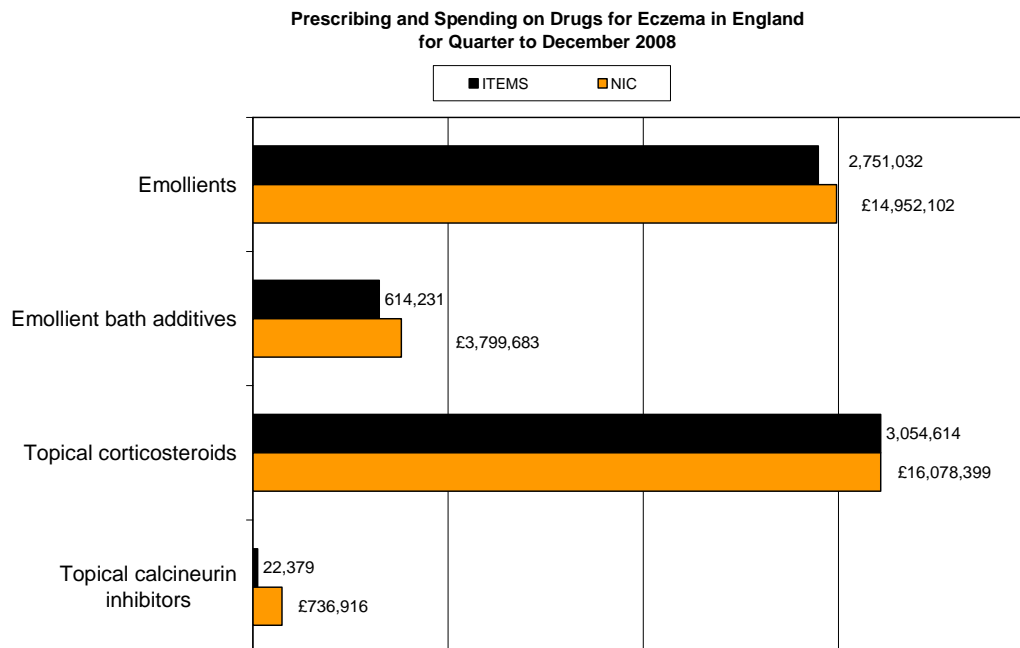
Price Chart



Prices based on Drug Tariff February 2009 or Chemist & Druggist January 2009.
Quantities based on 500grams or 500ml of emollient prescribed.

Summary

- Atopic eczema has a strong familial component and is closely associated with other atopic diseases and environmental factors in susceptible individuals.
- Emollients and barriers creams are the mainstay of treatment and should be used even when no eczema is present.
- Topical corticosteroids should be used sparingly and for as short a time as possible. Once the flare has been controlled maintenance treatment can be instigated using the corticosteroid for 2 consecutive days per week.
- Topical corticosteroids combined with antimicrobials are no more effective than topical corticosteroids alone and are not recommended for first-line use in infected eczema.
- Topical calcineurins – tacrolimus and pimecrolimus – should not be used first-line but may be useful for moderate to severe eczema unresponsive to topical corticosteroids in children aged over 2 years, and in adults.



Quarter to Dec 08

National

	ITEMS/1000 PUs	NIC/1000 PUs
Aqueous cream	7.13	£11.90
Diprobase ® cream	5.36	£36.78
E45 ® cream	4.95	£27.81
Doublebase ® gel	4.43	£27.61
All other emollients (excluding bath additives)	16.62	£105.15