

# Real World Evidence Corroborates Colloidal Oatmeal Efficacy for Atopic Dermatitis

Atopic dermatitis is a common, relapsing inflammatory skin disorder characterized by genetic abnormalities in the skin barrier via mutations in filaggrin, deficiencies in ceramides and cathelicidins, immunologic disturbances with a shift toward the Th-2 inflammatory pathway, and an elevation in serum immunoglobulin (IgE) levels.<sup>1</sup>

The Stats:



Atopic dermatitis (AD) affects up to 20% of children and 10% of adults worldwide.<sup>2-3</sup>



AD has the highest disease burden among skin diseases as measured by disability-adjusted life-years (DALYs)<sup>3</sup>



AD costs are estimated at over \$5 billion dollars annually in patient visits, lost productivity and reduced quality of life.<sup>4-7</sup>

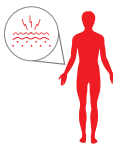
## Pivotal Study

Retrospective study shows using a colloidal oatmeal emollient for atopic dermatitis is associated with fewer primary care visits and reduced healthcare utilization<sup>8</sup>  
as published in *BMC Dermatol* 2018

Purpose

The Clinical Practice Research Datalink (CPRD) database of anonymized patient medical records was used to evaluate the overall costs to the National Health Service, including healthcare utilization, of prescribing emollients in UK primary care for dry skin and atopic eczema.

Design



54k patients

2 year retrospective study

aged 1 year and older



chronic dry skin & eczema

Data from 45,218 patients who used emollients, and 9,780 patients who did not, were evaluated for the 2 years following first diagnosis of dry skin and atopic eczema (DS&E). Two sub-analyses of the emollient group were performed between 1) those receiving colloidal oatmeal vs non-colloidal oatmeal emollients and 2) colloidal oatmeal used as first-line therapy vs used later in the treatment path.

## Results

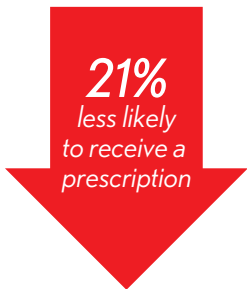


Study confirmed use of emollients resulted in:

✓ fewer primary care visits    ✓ reduced healthcare utilization    ✓ reduced costs



The colloidal oatmeal emollient outperformed all other non-oat emollients tested.



Patients using the colloidal oatmeal emollient were at least 21% less likely to receive a prescription for a potent or very potent topical corticosteroid or an antimicrobial within 2 years after diagnosis versus all other non-oat emollients.

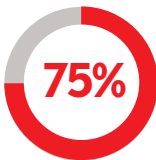
## Colloidal oatmeal emollient first-line vs introducing it later in treatment

Delayed use of a colloidal oatmeal emollient (after other emollients failed) was associated with significantly higher costs for prescriptions and repeat healthcare visits for adjustment of treatment within 2 years following diagnosis of treatment.

Use of other emollients first resulted in:



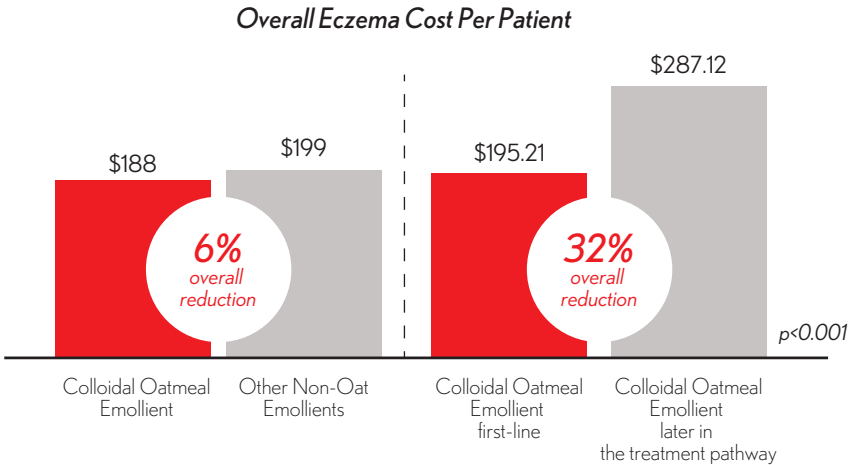
greater chance of being prescribed topical corticosteroids



chance of being prescribed an antimicrobial

The annual economic burden of eczema, including direct medical costs, indirect costs from lost productivity, and quality of life impacts is conservatively estimated at \$5.3 billion.<sup>4-7</sup>

This study showed the overall cost per patient was 6% less when a colloidal oatmeal emollient was used over other non-oat emollients and 32% less when a colloidal oatmeal emollient was used as first-line therapy (after other emollients failed).



The first comprehensive study to show the impact emollients can have, and specifically the superior efficacy of a colloidal oatmeal emollient over other emollients used first line to improve the integrity of the skin barrier, providing meaningful health outcomes associated with reduced need for antibiotic or potent/very potent TCS prescriptions, decreased antimicrobial prescriptions and overall reduced healthcare utilization and costs.

REFERENCES

1. Yang G, Seok JK, Kang HC, Cho YY, Lee HS, Lee JY. Skin Barrier Abnormalities and Immune Dysfunction in Atopic Dermatitis. *Int J Mol Sci.* 2020;21(8):2867. Published 2020 Apr 20. doi:10.3390/ijms21082867
2. Odhiambo JA, Williams HC, Clayton TO, Robertson CF, Asher MI; ISAAC Phase Three Study Group. Global variations in prevalence of eczema symptoms in children from ISAAC Phase Three. *J Allergy Clin Immunol.* 2009;124(6):1251-8.e23. doi:10.1016/j.jaci.2009.10.009
3. Deckers IA, McLean S, Linssen S, Mommers M, van Schayck CP, Sheikh A. Investigating international time trends in the incidence and prevalence of atopic eczema 1990-2010: a systematic review of epidemiological studies. *PLoS One.* 2012;7(7):e39803. doi:10.1371/journal.pone.0039803
4. Abuabara K, Yu AM, Okhovat JP, Allen IE, Langan SM. The prevalence of atopic dermatitis beyond childhood: A systematic review and meta-analysis of longitudinal studies. *Allergy.* 2018;73(3):696-704. doi:10.1111/all.13320
5. Lee HH, Patel KR, Singam V, Rastogi S, Silverberg JI. A systematic review and meta-analysis of the prevalence and phenotype of adult-onset atopic dermatitis. *J Am Acad Dermatol.* 2019;80(6):1526-1532.e7. doi:10.1016/j.jaad.2018.05.1241
6. Barbarot S, Auziere S, Gadkari A, et al. Epidemiology of atopic dermatitis in adults: Results from an international survey. *Allergy.* 2018;73(6):1284-1293. doi:10.1111/all.13401
7. Silverberg JI, Hanifin JM. Adult eczema prevalence and associations with asthma and other health and demographic factors: a US population-based study. *J Allergy Clin Immunol.* 2013;132(5):1132-1138. doi:10.1016/j.jaci.2013.08.031
8. Moncrieff, G., Lied-Lied, A., Nelson, G. et al. Cost and effectiveness of prescribing emollient therapy for atopic eczema in UK primary care in children and adults: a large retrospective analysis of the Clinical Practice Research Datalink. *BMC Dermatol* 18, 9 (2018). <https://doi.org/10.1186/s12895-018-0076-y>.