

## POSITION STATEMENT FOR SILK GARMENTS

### Recommendation: Black

Silk garments (DermaSilk®, DreamSkin® and Skinnies Silk™) are not recommended for the treatment of eczema / atopic dermatitis.

### Supporting Information

- These products are knitted, medical grade silk clothing which can be used as an adjunct to normal treatment for severe eczema and allergic skin conditions. When used in combination with medical creams and ointments, care should be taken to ensure that the medication is fully absorbed into the skin before the silk clothing is worn; silk garments are not suitable for use in direct contact with emollients used in 'wet wrapping techniques'.<sup>1</sup>
- In June 2014, UK Medicines Information (UKMI) published a review of the evidence for the use of Silk Garments in patients with eczema/atopic dermatitis, see Appendix 1.<sup>2</sup>
- **UKMI concluded there is currently only poor evidence from published trials to support prescribing of silk garments in children or adults with eczema/atopic dermatitis.**
- During a literature search one further randomised controlled trial, not included in the UKMI evidence review, was identified:<sup>3</sup>
  - This was a double-blind randomised controlled study published in June 2013 involving 22 infants, aged 4 to 18 months, affected by atopic dermatitis.
  - It aimed to assess the usefulness of DermaSilk® in reducing dermatitis relapses in infants affected by atopic dermatitis, previously treated with topical corticosteroids and if needed, with antibiotics.
  - The individuals were in remission at the start of the study which assessed the effectiveness of the intervention by measuring the amount of topical corticosteroids consumed (1 tube = 30 g) in two different groups of children over a two year period.
  - The children were randomised to either Group A (DermaSilk® body and tights) or Group B (clothes in pure cotton). The children wore the clothes for 24 months with the exception of the warmer months (mid-May to mid-September) – the trial was conducted in Italy.
  - The use of topical steroid per month was significantly lower in the DermaSilk® group compared to the cotton group (P=0.006). The subjective evaluation reflecting itching reduction was also statistically significant (P=0.014) improved in the DermaSilk® group.
- This RCT recruited a very small number of patients and therefore the results must be interpreted with caution. Two of the patients were lost to follow-up and not included in the table of results.

## References

1. British National Formulary December 2014  
[https://www.medicinescomplete.com/mc/bnf/current/PHP9841-silk-clothing.htm?q=silk&t=search&ss=text&p=3#\\_hit](https://www.medicinescomplete.com/mc/bnf/current/PHP9841-silk-clothing.htm?q=silk&t=search&ss=text&p=3#_hit) accessed on 10/12/14
2. UKMI Midlands Trent Medicines Information Service Silk Garments for Eczema/Atopic Dermatitis June 2014 <http://www.midlandsmedicines.nhs.uk/filestore/SilkGarments.pdf> accessed 9/12/14
3. Fontanini C, Berti I, Monasta L and Longo G. DermaSilk in long-term control of infantile atopic dermatitis: a double blind randomized controlled trial Giornale Italiano Di Dermatologia e Venereologia 2013 Jun; 148(3):293-7.

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## Silk garments for eczema/atopic dermatitis

### Device name and manufacturer

Three brands of knitted silk garments are currently listed in the Drug Tariff, these are DermaSilk<sup>®</sup>, DreamSkin<sup>®</sup> and Skinnies<sup>™</sup> silk.<sup>1,2,3</sup> All three brands have a wide range, from eye masks, socks and gloves to vests, pyjamas and body suits. Sizes of garments range from those suitable for babies and children to full size adult clothing. All three brands of garments contain medical grade silk that has been treated to remove the natural gum (sericin) which can be allergenic. The fibre is then coated with an antibacterial (DermaSilk<sup>®</sup>, Skinnies<sup>™</sup> silk) or a polymer (DreamSkin<sup>®</sup>). The manufacturers say that silk clothing is less irritant than standard cotton clothing, protects the skin from moisture loss while remaining 'breathable' and may reduce excessive sweating.<sup>1,2,3</sup>

### What is the evidence for effectiveness?

Published trials so far have been small and limited to infants and children. The largest of these recruited 46 children with atopic dermatitis aged from 2 months to 10 years; 31 of these were allocated to use of silk clothing (DermaSilk<sup>®</sup>) continuously for 7 days, the other participants wore cotton clothing.<sup>4</sup> Topical emollients were the only treatments allowed. Severity of symptoms was scored using a clinically validated scoring system ('SCORAD' index) by an investigator blinded to clothing type in each patient.<sup>5</sup> At the end of the 7 days the score for those using the silk garments had fallen from 43 to 30 (30% reduction,  $P = 0.003$ ), compared with a 2% reduction in the control group. They also found a statistically significant reduction in severity score for a localised area covered by silk clothing compared with another area left uncovered during the trial (baseline score 32 reduced to 18.6 (42% reduction,  $P = 0.001$ ) in the silk group compared with a reduction of 31 to 26 (16% reduction,  $P = 0.112$ ) in the control group.<sup>4</sup>

NICE guidance on treatment of atopic eczema in children (2007) made no recommendations about the use of such garments in the management of eczema, though they included this study in their review.<sup>6</sup>

A systematic review of silk garments in atopic dermatitis in 2012 concluded that the evidence of effectiveness is weak and of low quality.<sup>7</sup> A long term trial of silk therapeutic clothing for the management of eczema in children in the UK which includes an estimate of cost-effectiveness is due to report in 2016.<sup>8</sup>

### Costs

The following prices are from the Drug Tariff (June 2014), rounded to nearest £ for clarity, over a range of sizes and types of garment. Retail cost is higher (see manufacturers' websites). It is currently unclear how long garments would last, though manufacturers' websites say they can be washed repeatedly. Patients would probably need two sets of garments to allow for washing.

	Pair of gloves	Bodysuit	Pyjamas (1 set)	Leggings
DermaSilk <sup>®</sup>	£14 - £20	£37 - £42	£70 - £81	£27 - £78
DreamSkin <sup>®</sup>	£14 - £20	£35 - £40	£67 - £77	£25 (baby) - £76
Skinnies <sup>™</sup>	£13 - £19	£35 - £38 (baby only)	£69 - £146 (top + legging)	£25 - £74

### Conclusion

There is currently only poor evidence from published trials to support prescribing of silk garments in children or adults with atopic dermatitis/eczema.

### References

1. DermaSilk<sup>®</sup> manufacturers website, at [www.dermasilk.co.uk](http://www.dermasilk.co.uk), accessed June 2014
2. DreamSkin<sup>®</sup> manufacturers website, at [www.dreamskinhealth.co.uk](http://www.dreamskinhealth.co.uk), accessed June 2014
3. Skinnies<sup>™</sup> silk: manufacturers website, accessed via [www.skinniesuk.com](http://www.skinniesuk.com), accessed June 2014
4. Ricci G, Patrizi A et al. Clinical effectiveness of a silk fabric in the treatment of atopic dermatitis. Br J Dermatol 2004; 150: 127-31
5. European Task Force on atopic Dermatitis Clinical validation for SCORAD system. Dermatology. 1997;195(1):1-9
6. NICE guidance, 2007. Atopic eczema in children, accessed via <http://www.nice.org.uk/guidance/cg57/resources/cg57-atopic-eczema-in-children-full-guideline>, June 2014
7. Lopes C, Silva D, Delgado L et al. Functional textiles for atopic dermatitis: a systematic review and meta-analysis. Pediatr Allergy Immunol 2013; 24:603-13. <http://www.ncbi.nlm.nih.gov/pubmed/23980847>
8. Randomised controlled trial of silk therapeutic clothing for the long-term management of eczema in children (CLOTHES trial), accessed via <http://www.crd.york.ac.uk/crdweb/ShowRecord.asp?LinkFrom=OAI&ID=32013000947>, June 2014.

## Appendix 2

### Prescribing Data for Lancashire

Prescriber Name	Period Name	Total Items	Total Act Cost	Period Name	Total Items	Total Act Cost	Item growth (Q2 2014 v Q2 2013)	Cost growth (Q2 2014 v Q2 2013)
Blackburn With Darwen CCG	July-Sept 2013	20	£667.71	July-Sept 2014	38	£2,124.35	90%	218%
Blackpool CCG	July-Sept 2013	4	£64.67	July-Sept 2014	27	£1,798.39	575%	2681%
Chorley and South Ribble CCG	July-Sept 2013	5	£213.94	July-Sept 2014	8	£460.03	60%	115%
East Lancashire CCG	July-Sept 2013	61	£3,653.84	July-Sept 2014	62	£3,306.28	2%	-10%
Fylde & Wyre CCG	July-Sept 2013	4	£267.00	July -Sept 2014	3	£83.09	-25%	-69%
Greater Preston CCG	July-Sept 2013	9	£237.93	July-Sept 2014	30	£1,997.92	233%	740%
Lancashire North CCG	July-Sept 2013	1	£13.40	July-Sept 2014	0	£0.00	-100%	-100%
West Lancashire CCG	July-Sept 2013	13	£879.90	July-Sept 2104	30	£2,474.12	131%	181%
<b>Lancs Total</b>	<b>July-Sept 2013</b>	<b>117</b>	<b>£5,998.38</b>	<b>July-Sept 2104</b>	<b>198</b>	<b>£12,244.18</b>	<b>69%</b>	<b>104%</b>