and creation of scalability for sun safety interventions.[3] Sunscreen dispensers provide opportunities for targeted messaging to low-use groups (eg, men, skin of color, low income)[4] and the potential for widespread increases in sunscreen use. A 2018 study modeling a 5% yearly increase in prevalence of sunscreen use from 2012 to 2022 estimated that cumulatively to 2031, 231,053 fewer melanomas would be diagnosed in the US white population; this illustrates the conceivable benefit from large-scale initiatives such as community dispenser programs.[5]

Study limitations include data that did not comprise 2015 and 2016 requisitions and were limited to a single organization; thus, the total number of dispensers and amount of sunscreen used nationwide are higher. Additionally, sunscreen distributed serves as a surrogate measure for use and does not necessarily indicate exact usage patterns.

Despite recent trends in dispenser implementation, further investigation is required to determine effects on photoprotective perceptions and behavior. Future research should assess value as a population health initiative by quantifying use, evaluating effect on specific user subgroups, and providing estimates of skin cancers prevented. Our observations highlight the increasing prominence of free sunscreen dispensers and discuss their potential utility in primary skin cancer prevention.

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Chelsea D. Eason, MSCR,[a] Chandler Rundle, MD,[b] Cory A. Dunnick, MD,[b,c] Jeremy Hugh, MD,[b,c] and Robert P. Dellavalle, MD, MSPH[b,c]

From the Department of Dermatology and Dermatologic Surgery, Medical University of South Carolina, Charleston[a]; Department of Dermatology, University of Colorado School of Medicine, Aurora[b]; and Dermatology Service, Rocky Mountain Regional Veterans Affairs Medical Center, Aurora, Colorado.[c]

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Correspondence to: Robert P. Dellavalle, MD, MSPH, 1700 N Wheeling St, Rocky Mountain Regional Veterans Affairs Medical Center, Aurora, CO 80011

E-mail: robert.dellavalle@cuanshutz.edu

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Collodion babies: A 15-year retrospective multicenter study in The Netherlands—Evaluation of severity scores to predict the underlying disease

To the Editor: The clinical phenotype of a collodion baby can be caused by many ichthyosis subtypes of different severities. When genetic analysis is not possible or when diagnosis is unknown, clinical evaluation is essential to identify the more severe syndromic subtypes of ichthyosis in which other organ systems besides skin can be affected. Rubio-Gomez et al[1] proposed a clinical scoring system based on collodion penotype based on 15 characteristics and concluded that an extensive collodion membrane was predominantly related to a non-syndromic ichthyosis. The current study evaluated this collodion severity scoring system on its applicability. A 15-year retrospective multicenter study (January 2000 through January 2015) was conducted among 3 academic centers in The Netherlands. A total of 23 collodion babies were included. Details of the collodion membrane were scored according

Table I. Outcome of available mutation analysis and application of severity score in the study population (n = 15)

Patient	Center*	Gene	Variant description	Status of mutation	Protein	Diagnosis (inheritance)	Erythroderma at birth	Severity score	Category
1	A	*ADAM17*	NM_003183.4:c.308dupA	Hom	p.Asn103LysfsTer20	NISBD (AR)†	Yes	2	2
2	A	*ALOX12B*	NM_001139:c.1463G>A	Hom	p.Arg488His	UCI	No	2	3
3	A	*ALOX12B*	NM_001139:c.769C>G	Hom	p.His257Asp	LI (AR)	Yes	11	1
4	A	*TGM1*	NM_0059.3:c.877-2A>G	Het	p.(?)	LI (AR)	No	4	1
			NM_00359.3:c.425G>A	Het	p.Arg142His				
5	B	*TGM1*	NM_00359.3:c.1318G>A	Hom	p.Arg440H	LI (AR)	No	6	1
6	B	*TGM1*	NM_00359.3:c.877-2A>G	Het	p.(?)	LI (AR)	No	1	1
			NM_00359.3:c.919C>G	Het	p.Arg307Gly				
7	B	*TGM1*	NM_00359.3:c.389_407dup	Het	p.Tyr136*	LI (AR)	No	5	1
			NM_00359.3:c.1472C>T	Het	p.Thr491Met				
8	B	*ALOX12B*	NM_001139:c.1642C>T	Het	p.Arg548Trp	SHCB (AR)	Yes	8	3
			NM_001139:c.1349G>A	Het	p.Gly450Glu				
9	C	*TGM1*	NM_00359.3:c.796G>C	Het	p.Glu266Gln	LI (AR)	Yes	5	1
			NM_00359.3:c.877-2A>G	Het	p.(?)				
10	C	*ABCA12*	NM_173076:c.6440dup	Het	p.Gln2149fs	LI (AR)	Yes	2	1
			NM_173076:c.3180-6T>G	Het	p.(?)				
11	C	*ALOXE3*	NM_001165960.1:c.1642T>C	Het	p.Cys548Arg	LI (AR)	Yes	3	1
			NM_001165960.1:c.2285C>T	Het	p.Pro762Leu				
12	C	*TGM1*	NM_00359.3:c.919C>G	Hom	p.Arg307Gly	SHCB (AR)	Yes	2	3
13	C	*ALDH3A2*	NM_000382.3:c.1297_1298delGA	Hom	p.Glu433fs	SLS (AR)	Yes	2	2
14	C	*ALDH3A2*	NM_000382.3:c.1297_1298del	Hom	p.Glu433fs	SLS (AR)	Yes	5	2
15	C	*PNPLA1*	NM_173676.2:c.488C>T	Hom	p.Pro163Leu	ARCI10 (AR)	Yes	3	1

AR, Autosomal recessive; *ARCI*, autosomal recessive congenital ichthyosis; *Het*, heterozygous; *Hom*, homozygous; *LI*, lamellar ichthyosis; *NISBD*, neonatal inflammatory skin and bowel disease (OMIM#614328); *SHCB*, self-healing collodion baby; *SLS*, Sjögren-Larsson syndrome; *UCI*, unspecified congenital ichthyosis.

*Academic centers: A, Erasmus Medical Center, Rotterdam C; B, University Medical Center Utrecht; C, University Medical Center Groningen.

†Case has been published elsewhere.[2]

Table II. Severity scores of all 23 newborns with collodion membrane, according to the collodion severity scoring system proposed by Rubio-Gomez et al[1]

Category	Low score (0-5), mean; range (n)	Intermediate score (6-10), mean; range (n)	High score (11-15), mean (n)
Nonsyndromic ichthyosis	3.3; 1-5 (7)	7.5; 6-9 (2)	11 (1)
UCI + SHCB	3.4; 2-5 (5)	8; 7-9 (4)	—
Syndromic ichthyosis	3.5; 2-5 (4)	—	—

SHCB, Self-healing collodion membrane; *UCI*, unspecified congenital ichthyosis.

to the proposed scoring system[1] (Supplemental Table I; available via Mendeley at https://doi.org/10.17632/xhm5r9ynst.2). All 23 collodion babies had a form of ichthyosis: 83% (n = 19) had a nonsyndromic subtype, and 17% (n = 4) had a syndromic subtype. Genetic analysis was performed in all patients. Similar to the previous study, patients with causative mutations (n = 15) were grouped into 3 categories[1]: (1) nonsyndromic ichthyosis (n = 9), (2) syndromic ichthyosis (n = 3), and (3) self-healing collodion baby together with unspecified congenital ichthyosis (n = 3).

The results of the genetic analysis and the severity score are shown in Table I.[2] In 8 patients, mutation analysis could not confirm the clinical suspicion of ichthyosis, although 1 patient was interpreted as having syndromic ichthyosis because of unspecified

syndromic features. Six patients were interpreted as having nonsyndromic ichthyosis and 1 as having unspecified congenital ichthyosis due to a mutation in *CYP4F22*. The mean score results of the 3 categories were compared using analysis of variance and were statistically not significant ($P = .8406$). Adding the 8 patients without a confirmed genetic cause did not modify the conclusion ($P = .7669$). The severity scores of these 8 patients were comparable to those in category 3 with mutation ($P = .1329$). No significant difference (sample F test) was found between the mean score of the syndromic ichthyosis category compared with that of all patients with nonsyndromic ichthyosis ($P = .5327$). Oji et al[3] showed that a limited collodion could be related to a syndromic ichthyosis but that no correlation was found between the severity of the collodion membrane and genetic outcome. We observed a trend toward a higher severity score for nonsyndromic ichthyosis and a lower score for syndromic ichthyosis, similar to the study by Rubio Gomez et al[1] (Table II). This might be explained by the fact that the classical autosomal recessive congenital ichthyosis genes (ie, *TGM1*, *ALOX12B*, *LIPN*, *PNPLA1*, *ABCA12*, *ALOXE3*, and *CYP4F22*) are related to higher differentiated keratinocytes and, thus, might induce a more extended collodion membrane compared to *ALDH3A2*, *ABHD5*, *SCL27A4*, and *GBA*, genes related to syndromic ichthyoses.[4]

Although our study indicated that syndromic ichthyosis may be related to lower collodion severity scores, our study showed insufficient evidence for an effective application of the proposed collodion scoring system to predict an underlying type of ichthyosis. The retrospective design and few patients with syndromic ichthyosis were relevant limitations therein.

Edwin Cuperus, MD,[a] Marieke C. Bolling, MD, PhD,[b] Marlies de Graaf, MD, PhD,[c] Peter C. van den Akker, MD, PhD,[d] Marielle E. van Gijn, PhD,[d] Marleen E. H. Simon, MD, PhD,[e] Vigfús Sigurdsson, MD, PhD,[c] and Suzanne G. M. A. Pasmans, MD, PhD[a]

From the Department of Dermatology, Erasmus MC Medical Center-Sophia Children's Hospital, Rotterdam, The Netherlands[a]; Department of Dermatology, University of Groningen, University Medical Center Groningen, Groningen, The Netherlands[b]; Department of Dermatology, Utrecht University, University Medical Center Utrecht-Wilhelmina Children's Hospital, Utrecht, The Netherlands[c]; Department of Genetics, University of Groningen, University Medical Center Groningen, Groningen, The Netherlands[d]; and Department of Genetics, Utrecht University, University Medical Center Utrecht-Wilhelmina Children's Hospital, Utrecht, The Netherlands.[e]

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Reprint requests: Suzanne G. M. A. Pasmans, MD, PhD, Department of Dermatology, Center of Pediatric Dermatology, Sophia Children's Hospital, Sp-1540, Erasmus MC University Medical Center Rotterdam, Wytemaweg 80, 3015 CN Rotterdam, The Netherlands

E-mail: s.pasmans@erasmusmc.nl

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Morphea-like skin lesions reported in the phase 3 Long-Term Odanacatib Fracture Trial (LOFT) in postmenopausal women with osteoporosis

To the Editor: Odanacatib, an oral selective inhibitor of cathepsin K, was previously in development for the treatment of osteoporosis.[1] Because of morphea-like skin changes reported in 2 studies of the cathepsin K inhibitor balicatib (1.3% of patients),[2,3] the occurrence of these lesions was assessed in the phase 3 Long-Term Odanacatib Fracture Trial (LOFT; NCT00529373). Here, we describe morphea-like skin changes and systemic sclerosis in postmenopausal women receiving odanacatib or placebo in the LOFT base study and its preplanned extension.

LOFT was a randomized, double-blind, event-driven, placebo-controlled trial of odanacatib