

Supplementary material has been published as submitted. It has not been copyedited, typeset or checked for scientific content by Acta Dermato-Venereologica

**Table SI** - Demographics and characteristics of subjects with a lifetime diagnosis of psoriasis, according to algorithmic severity classification

		Univariate analysis				Multivariable analysis			
		Mild psoriasis		Moderate/severe psoriasis		P**	OR (95% CI)	P***	
		N*	%	N*	%				
Sex	Total	380	64.4%	210	35.6%	0.39	1	1.11 (0.77-1.60)	0.59
	Male	186	48.9%	95	45.2%				
	Female	194	51.1%	115	54.8%				
Age (years)	18 - 29	70	18.4%	40	19.0%	0.42	1	1.84 (0.91-3.73)	0.09
	30 - 44	85	22.4%	59	28.1%				
	45 - 59	116	30.5%	57	27.1%				
	60 - 74	109	28.7%	54	25.7%				
Occupation	Working	217	57.1%	109	52.2%	0.46	1	1.30 (0.60-2.81)	0.51
	Student	43	11.3%	28	13.4%				
	Unemployed	22	5.8%	10	4.8%				
	Retired	81	21.3%	45	21.5%				
	Homemaker	5	1.3%	6	2.9%				
	Other	12	3.2%	11	5.3%				
Marital status	Married/common law	201	53.0%	104	49.5%	0.51	1	1.25 (0.69-2.24)	0.46
	Divorced/widowed	48	12.7%	24	11.4%				
	Single	130	34.3%	82	39.0%				
Smoking habits	Non-smoker	156	41.2%	107	51.0%	0.06	1	0.87 (0.56-1.35)	0.53
	Ex-Smoker	115	30.3%	57	27.1%				
	Smoker	108	28.5%	46	21.9%				
BMI (kg/m <sup>2</sup> )	<20	20	5.3%	18	8.6%	0.38	1.70 (0.82-3.52)	1	0.15
	20 - 24.9	181	47.9%	90	42.9%				
	25 - 29.9	114	30.2%	66	31.4%				
	≥30	63	16.7%	36	17.1%				

BMI: body mass index, CI: confidence interval, OR: odds ratio

\* Numbers may not add up to the total due to missing data

\*\* Pearson's X<sup>2</sup> test

\*\*\* Multivariable logistic regression analysis including terms for sex, age, occupation, marital status, smoking habits, BMI and country of residence

**Table SII** - Perceptions related to the skin and avoidance experience of subjects with a lifetime diagnosis of psoriasis, according to algorithmic severity classification

	Univariate analysis				p**	Multivariable analysis	
	Mild psoriasis		Moderate/severe psoriasis			OR (95% CI)^	p***
	N*	%	N*	%			
Dry skin	273	72.8%	141	68.1%	0.23	0.75 (0.50-1.12)	0.16
Sensitive skin	182	48.7%	106	50.7%	0.63	0.93 (0.64-1.35)	0.69
Avoidance of metals	141	37.1%	67	31.9%	0.21	0.72 (0.48-1.08)	0.11
Avoidance of rubbers	37	9.7%	15	7.1%	0.29	0.69 (0.36-1.32)	0.26
Avoidance of leave on products	199	52.4%	95	45.2%	0.10	0.68 (0.46-1.00)	0.05
Avoidance of rinse off products	121	31.8%	58	27.6%	0.28	0.82 (0.55-1.23)	0.33
Avoidance of household products	111	29.2%	48	22.9%	0.10	0.61 (0.40-0.94)	0.02
Avoidance of other products°	123	32.4%	76	36.2%	0.35	1.13 (0.76-1.66)	0.55
Avoidance of topical medications	34	8.9%	20	9.5%	0.82	1.11 (0.60-2.08)	0.74

CI: confidence interval, OR: odds ratio

\* Numbers may not add up to the total due to missing data

\*\* Pearson's  $\chi^2$  test

\*\*\* Multivariable logistic regression analysis including terms for sex, age, occupation, marital status, smoking habits, BMI and country of residence

^ OR comparing yes vs. no

° Including bandages or tape, leather products, henna or permanent tattoos, hair colorants

**Table SIII – Use of selected drugs and performance of allergy tests in subjects with a lifetime diagnosis of psoriasis, according to algorithmic severity classification**

	Univariate analysis					Multivariable analysis	
	Mild psoriasis		Moderate/severe psoriasis		p**	OR (95% CI)^	p***
	N*	%	N*	%			
Anti inflammatory drugs used in past year?	132	35.5%	63	30.0%	0.18	0.69 (0.47-1.01)	0.06
Analgesics used in past year?	159	42.6%	74	35.2%	0.08	0.83 (0.57-1.22)	0.35
Antibiotics used in past year?	37	10.2%	12	5.7%	0.07	0.46 (0.22-0.96)	0.04
Anaesthetics used in past year?	23	7.4%	10	5.5%	0.41	0.88 (0.38-2.04)	0.77
Prick tests performed in lifetime?	133	36.7%	78	38.0%	0.76	0.87 (0.59-1.30)	0.50
Patch tests performed in lifetime?	78	21.2%	43	20.9%	0.93	1.01 (0.65-1.58)	0.95
Allergy testing performed in lifetime?	43	12.5%	22	11.1%	0.62	1.01 (0.57-1.80)	0.97

CI: confidence interval, OR: odds ratio

\* Numbers may not add up to the total due to missing data

\*\* Pearson's X<sup>2</sup> test

\*\*\* Multivariable logistic regression analysis including terms for sex, age, occupation, marital status, smoking habits, BMI and country of residence

^ OR comparing yes vs. no

**Table SIV** - Positive reactions among patch-tested subjects with a lifetime diagnosis of psoriasis, according to algorithmic severity classification

At least one positive reaction to:	Univariate analysis				Multivariable analysis		
	Mild psoriasis		Moderate/severe psoriasis		p**	OR (95% CI)^	p***
	N=101*	%	N=62*	%			
True Test Panel 1	19	18.8%	13	21.0%	0.74	1.22 (0.51-2.91)	0.66
True Test Panel 2	13	12.9%	6	9.7%	0.54	0.64 (0.22-1.85)	0.41
True Test Panel 3	0	0.0%	1	1.6%	0.38	nc	nc
Single substances of FM I	6	5.9%	1	1.6%	0.25	0.19 (0.02-1.66)	0.19
Single substances of FM II	3	3.0%	2	3.2%	1	0.75 (0.11-5.08)	0.77
EU-Standard series <sup>1</sup>	5	5.4%	1	1.9%	0.42	0.30 (0.03-2.80)	0.29
Metals <sup>2</sup>	16	15.8%	9	14.5%	0.82	0.97 (0.36-2.57)	0.95
Preservatives <sup>3</sup>	4	4.0%	5	8.1%	0.30	1.93 (0.48-7.78)	0.36
Rubbers <sup>4</sup>	5	5.0%	0	0.0%	0.16	nc	nc
Topical steroids <sup>5</sup>	0	0.0%	1	1.6%	0.38	nc	nc
Any tested allergen	29	28.7%	14	22.6%	0.39	0.69 (0.32-1.51)	0.36

CI: confidence interval, FM: fragrance mix, OR: odds ratio

\* Numbers may not add up to the total due to missing data

\*\* Pearson's  $\chi^2$  test or Fisher's exact test where required

\*\*\* Multivariable logistic regression analysis including terms for sex, age and country of residence

^ OR comparing yes vs. no

<sup>1</sup> Including new fragrance mix (b+), fragrance mix ii 14% pet, balsam of Peru, sesquiterpenelactone mix 0.1% pet and lylal 5% pet

<sup>2</sup> Including nickel sulfate, potassium dichromate and cobalt chloride

<sup>3</sup> Including thiomersal, cl+me-isothiazolinone, quaternium 15-, formaldehyde, parabens mix, diazolidinyl urea and imidazolidinyl urea

<sup>4</sup> Including carba mix 250, black rubber mix, mercaptobenzothiazole, mercapto mix and thiuram mix

<sup>5</sup> Including budesonide, tixocortol-21-pivalate and hydrocortisone-17-butyrate