Supplementary Material

Validation of the peak pruritus numerical rating scale as a patient-reported outcome measure in prurigo nodularis

Shawn G. Kwatra[1], Danielle Rodriguez[2], Carla Dias-Barbosa[3], Ismail Budhiarso[2], Fatoumata Fofana[4], Margaret Vernon[5], Sylvie Gabriel[6], Christophe Piketty[6], Jorge Puelles[6]

[1]Department of Dermatology, Johns Hopkins University School of Medicine, Baltimore, MD, USA

[2]Evidera, Seattle, WA, USA

[3]Evidera, Ivry-sur-Seine, France

[4]Evidera, Bennekom, the Netherlands

[5]Evidera, Bethesda, MD, USA

[6]Galderma, La Tour-de-Peilz, Switzerland

Corresponding author: Danielle Rodriguez, 615 2nd Ave Ste 500, Seattle, WA 98104

Danielle.Rodriguez@evidera.com

Table S1. Correlations of score change from baseline to week 4 for the PP NRS with score changes for other outcome measures

Outcome measure	N	r[a]	p-value[a]
PP VRS average weekly score	62	0.88	< 0.0001
AP VRS average weekly score	62	0.84	< 0.0001
DLQI item 1 (itch)	46	0.69	< 0.0001
PAS number of prurigo lesions in a representative area	60	0.29	0.0260
PAS percentage of prurigo lesions with excoriations/crusts	61	0.41	0.0009
PAS percentage of healed prurigo lesions	61	0.51	< 0.0001
IGA score	61	0.55	< 0.0001
DPS	57	-0.65	< 0.0001

[a]Spearman's rank order correlation.

AP VRS, Average Pruritus Verbal Rating Scale; DLQI, Dermatology Life Quality Index; DPS, Dynamic Pruritus Score; IGA, Investigator Global Assessment; PAS, Prurigo Activity Score; PP NRS, Peak Pruritus Numerical Rating Scale; PP VRS, Peak Pruritus Verbal Rating Scale.

Table S2. Outcome measures

Outcome measure	Measurement	Recall period	Minimum value(s)	Maximum value(s)	Frequency/time point(s) of assessment
Patient-reported					
AP NRS	Average pruritus intensity	24 h	0 (no itch)	10 (worst itch imaginable)	Daily[a]
AP VRS	Average pruritus intensity		No itch (0)	Very severe itch (4)	Daily[a]
DLQI	Quality of life related to skin disease	1 week	0-1 (no effect at all)	21-30 (extremely large effect)	Baseline; weeks 4 and 12[a]
DPS	Change in pruritus intensity	24 h	Strongly worsened (0)	(Almost) no pruritus anymore (8)	24, 48, and 72 h after the first injection; week 4
PP NRS	Peak pruritus intensity	24 h	0 (no itch)	10 (worst itch imaginable)	Daily[a]
PP VRS	Peak pruritus intensity		No itch (0)	Very severe itch (4)	Daily[a]
Clinician-reported					
IGA	Severity of prurigo nodularis	NA	0 (clear)	4 (severe)	Baseline; weeks 4, 8, 12, and 18[a]
PAS[b]	Severity of prurigo nodularis	NA			Baseline; weeks 4, 8, 12, and 18[a]
	Number of prurigo lesions in a representative area		0	None specified	
	Percentage of prurigo lesions with excoriations/crusts		0%	76-100%	
	Percentage of healed prurigo lesions		0-24%	100%	

[a]And at early termination, if applicable.

[b]Only the given PAS items were included in the analyses.

AP NRS, Average Pruritus Numerical Rating Scale; AP VRS, Average Pruritus Verbal Rating Scale; DLQI, Dermatology Life Quality Index; DPS, Dynamic Pruritus Score; IGA, Investigator Global Assessment; NA, not applicable; PAS, Prurigo Activity Score; PP NRS, Peak Pruritus Numerical Rating Scale; PP VRS, Peak Pruritus Verbal Rating Scale.

Figure S1. Smallest improvement on the PP NRS that qualitative interview participants (n=18) would consider meaningful