

## **Use of the DLQI for validation of new measures**

**Below are recent examples of new patient reported outcome measures and other disease measures which have been validated against the DLQI**

### 6 item stigma scale

Dimitrov D, Matusiak Ł, Evers A, Jafferany M, Szepietowski J. Arabic language skin-related stigmatization instruments: Translation and validation process. *Adv Clin Exp Med*. 2019 Jun;28(6):825-832

### 12 item pruritus severity

Reich A, Bożek A, Janiszewska K, Szepietowski JC. 12-Item Pruritus Severity Scale: Development and Validation of New Itch Severity Questionnaire. *Biomed Res Int*. 2017;2017:3896423

### AASIS

Mendoza TR, Osei J, Duvic M. The Utility and Validity of the Alopecia Areata Symptom Impact Scale in Measuring Disease-Related Symptoms and their Effect on Functioning. *J Investig Dermatol Symp Proc*. 2018 Jan;19(1):S41-S46.

### ABS-A

Taïeb A, Boralevi F, Seneschal J, Merhand S, Georgescu V, Taieb C, Ezzedine K. Atopic Dermatitis Burden Scale for Adults: Development and Validation of a New Assessment Tool. *Acta Derm Venereol*. 2015 Jul;95(6):700-5.

### AISI

Chiricozzi A, Faleri S, Franceschini C, Caro RD, Chimenti S, Bianchi L. AISI: A New Disease Severity Assessment Tool for Hidradenitis Suppurativa. *Wounds*. 2015 Oct;27(10):258-64.

### ASRI

Liu YS, Sun CK, Li TS, Liu CJ. The development and validation of an acne self-regulation inventory. *J Dermatol Sci*. 2016 Nov;84(2):203-209

### BoA

Morice-Picard F, Taïeb C, Marti A, Gliksohn A, Bennani M, Bodemer C, Ezzedine K; Filière Maladies Rares en Dermatologie: FIMARAD. Burden of albinism: development and validation of a burden assessment tool. *Orphanet J Rare Dis*. 2018 Sep 18;13(1):162

### BoN

Armand ML, Taieb C, Bourgeois A, Bourlier M, Bennani M, Bodemer C, Wolkenstein P<sup>1</sup>; along with the French national network on rare skin diseases (FIMARAD). Burden of adult neurofibromatosis 1: development and validation of a burden assessment tool. *Orphanet J Rare Dis*. 2019 May 3;14(1):94.

### BoSS

Misery L, Jourdan E, Abadie S, Ezzedine K, Brenaut E, Huet F, Sayag M, Taieb C. Development and validation of a new tool to assess the Burden of Sensitive Skin (BoSS). *J Eur Acad Dermatol Venereol*. 2018 Dec;32(12):2217-2223.

### CSAMI

Yeung H, Farber S, Birnbaum BK, Dunham J, Ogdie A, Patterson KC, Payne AS, Porteous MK, Rossman MD, Sharim R, Takeshita J, Werth VP, Shin DB, Price S, Rosenbach M. Reliability and Validity of Cutaneous Sarcoidosis Outcome Instruments Among Dermatologists, Pulmonologists, and Rheumatologists. *JAMA Dermatol*. 2015 Dec 1;151(12):1317-1322.

### EORTC QIQ C30

Müller K, Karrer S, Szeimies RM, Steinbauer J, Kohl E, Steinbauer D, Zeman F, Berneburg M, Koller M. Quality of life assessment in patients with nonmelanoma skin cancer - psychometric validation of the EORTC QLQ-C30 questionnaire. *J Dtsch Dermatol Ges*. 2017 Nov;15(11)

### EQ-5D pemphigus

Tamási B, Brodsky V, Péntek M, Gulácsi L, Hajdu K, Sárdy M, Szegedi A, Bata-Csörgő Z, Kinyó Á, Rencz F. Validity of the EQ-5D in patients with pemphigus vulgaris and pemphigus foliaceus. *Br J Dermatol*. 2019 Apr;180(4):802-809

### Fragrance QoL

Bennike NH, Heisterberg MS, White IR, Mahler V, Silvestre-Salvador JF, Giménez-Arnau A, Johansen JD. Quality of life and disease severity in dermatitis patients with fragrance allergy-A cross-sectional European questionnaire study. *Contact Dermatitis*. 2019 Aug;81(2):89-96

Heisterberg MV, Menné T, Johansen JD. Fragrance allergy and quality of life - development and validation of a disease-specific quality of life instrument. *Contact Dermatitis*. 2014 Feb;70(2):69-80

### FFASS

Saceda-Corralo D, Moreno-Arrones ÓM, Fonda-Pascual P, Pindado-Ortega C, Buendía-Castaño D, Alegre-Sánchez A, Segurado-Miravalles G, Rodrigues-Barata AR, Jaén-Olasolo P, Vaño-Galván S: Development and validation of the Frontal Fibrosing Alopecia Severity Score. *J Am Acad Dermatol*. 2018 Mar;78(3):522-529.

### HidroQoL

Kamudoni P, Mueller B, Salek MS. The development and validation of a disease-specific quality of life measure in hyperhidrosis: the Hyperhidrosis Quality of Life Index (HidroQOL®). *Qual Life Res*. 2015 Apr;24(4):1017-27.

### HiSCR

Kimball AB, Jemec GB, Yang M, Kageleiry A, Signorovitch JE, Okun MM, Gu Y, Wang K, Mulani P, Sundaram M. Assessing the validity, responsiveness and meaningfulness of the Hidradenitis Suppurativa Clinical Response (HiSCR) as the clinical endpoint for hidradenitis suppurativa treatment. *Br J Dermatol*. 2014 Dec;171(6):1434-42.

### HRQ-Melasma

Pollo CF, Miot LDB, Meneguín S, Miot HA. Development and validation of a multidimensional questionnaire for evaluating quality of life in melasma (HRQ-melasma). *An Bras Dermatol*. 2018 Jun;93(3):391-396

### HS-QoL 34.

Marrón SE, Gómez-Barrera M, Tomás-Aragónés L, Díaz Díaz RM, Vilarrasa Rull E, Madrid Álvarez MB, Puig L. Development and Preliminary Validation of the HSQoL-24 Tool to Assess Quality of Life in Patients With Hidradenitis Suppurativa. *Actas Dermosifiliogr*. 2019 Sep;110(7):554-560

### Individual Burden of Psoriasis (I-BOP)

Khaled Ezzedine, Anne Claire Fougousse, Roberte Aubert, Jean-Benoît Monfort, Ziad Reguiaï, Jason Shourick, Charles Taieb and François Maccari. Individual Burden of Psoriasis (I-BOP): Building and Validation of a New Scoring Tool for Patients with Psoriasis. *Clin Cosmet Investig Dermatol*. 2020; 13: 325–332.

#### IHS4

Zouboulis CC, Tzellos T, Kyrgidis A, Jemec GBE, Bechara FG, Giamarellos-Bourboulis EJ, Ingram JR, Kanni T, Karagiannidis I, Martorell A, Matusiak Ł, Pinter A, Prens EP, Presser D, Schneider-Burrus S, von Stebut E, Szepietowski JC, van der Zee HH, Wilden SM, Sabat R; European Hidradenitis Suppurativa Foundation Investigator Group. Development and validation of the International Hidradenitis Suppurativa Severity Score System (IHS4), a novel dynamic scoring system to assess HS severity. *Br J Dermatol*. 2017 Nov;177(5):1401-1409

#### IPBOD

Cohen JM, Halim K, Joyce CJ, Patel M, Qureshi AA, Merola JF. Shedding Light on the "Hidden Psoriasis": A Pilot Study of the Inverse Psoriasis Burden of Disease (IPBOD) Questionnaire. *J Drugs Dermatol*. 2016 Aug 1;15(8):1011-6.

#### ODDI

Ofenloch RF, Diepgen TL, Popielnicki A, Weisshaar E, Molin S, Bauer A, Mahler V, Elsner P, Schmitt J, Apfelbacher C. Severity and functional disability of patients with occupational contact dermatitis: validation of the German version of the Occupational Contact Dermatitis Disease Severity Index. *Contact Dermatitis*. 2015 Feb;72(2):84-9.

#### PaAID-12

Di Carlo M, Becciolini A, Lato V, Crotti C, Favalli EG, Salaffi F. The 12-item Psoriatic Arthritis Impact of Disease Questionnaire: Construct Validity, Reliability, and Interpretability in a Clinical Setting. *J Rheumatol*. 2017 Mar;44(3):279-285.

#### PAS

Pölking J, Zeidler C, Schedel F, Osada N, Augustin M, Metze D, Pereira MP, Yosipovitch G, Bernhard JD, Ständer S. Prurigo Activity Score (PAS): validity and reliability of a new instrument to monitor chronic prurigo. *J Eur Acad Dermatol Venereol*. 2018 Oct;32(10):1754-1760

#### Patient reported AD severity

Vakharia PP, Chopra R, Sacotte R, Patel N, Immaneni S, White T, Kantor R, Hsu DY, Silverberg JI. Validation of patient-reported global severity of atopic dermatitis in adults. *Allergy*. 2018 Feb;73(2):451-458

#### PBI-AS

Lohrberg D, Blaak J, Liebsch J, Staib P, Wohlfart R, Lüttje D, Schürer NY, Augustin M, Blome C. Development and validation of the Patient Benefit Index for the dermatocosmetic treatment of aged skin. *Arch Dermatol Res*. 2016 Jul;308(5):319-24.

### PCQoL

Abbas M, Schwartz ME, Smith FJ, McLean WH, Hull PR. PCQoL: A Quality of Life Assessment Measure for Pachyonychia Congenita. *J Cutan Med Surg*. 2015 Jan-Feb;19(1):57-65.

### PGA

Walsh JA, Jones H, Mallbris L, Duffin KC, Krueger GG, Clegg DO, Szumski A. The Physician Global Assessment and Body Surface Area composite tool is a simple alternative to the Psoriasis Area and Severity Index for assessment of psoriasis: post hoc analysis from PRISTINE and PRESTA. *Psoriasis (Auckl)*. 2018 Oct 8;8:65-74.

### PSD

Strober B, Zhao Y, Tran MH, Gnanasakthy A, Nyirady J, Papavassilis C, Nelson LM, McLeod LD, Mordin M, Gottlieb AB, Elewski BE, Lebwohl M. Psychometric validation of the Psoriasis Symptom Diary using Phase III study data from patients with chronic plaque psoriasis. *Int J Dermatol*. 2016 Mar;55(3):e147-55.

### PsoDisc psoriasis

Sampogna F, Linder D, Romano GV, Gualberti G, Merolla R, di Luzio Papparatti U. Results of the validation study of the Psodisk instrument, and determination of the cut-off scores for varying degrees of impairment. *J Eur Acad Dermatol Venereol*. 2015 Apr;29(4):725-31.

### PSI x 2

Viswanathan HN, Mutebi A, Milmont CE, Gordon K, Wilson H, Zhang H, Klekotka PA, Revicki DA, Augustin M, Kricorian G, Nirula A, Strober B. Measurement Properties of the Psoriasis Symptom Inventory Electronic Daily Diary in Patients with Moderate to Severe Plaque Psoriasis. *Value Health*. 2017 Sep;20(8):1174-1179

Revicki DA, Jin Y, Wilson HD, Chau D, Viswanathan HN. Reliability and validity of the psoriasis symptom inventory in patients with moderate-to-severe psoriasis. *J Dermatolog Treat*. 2014 Feb;25(1):8-14.

### PSS

Armstrong AW, Edson-Heredia E, Naegeli AN, Burge R, Poon JL, Anatchkova M, Sun L, Zhu B, Wyrwich KW. Development of the Psoriasis Symptoms Scale (PSS) in patients with moderate-to-severe psoriasis: qualitative and quantitative analyses. *J Dermatolog Treat*. 2019 Jul 15:1-8.

### PSSD

Armstrong A, Puig L, Langley R, Tsai TF, Song M, Wasfi Y, Jiang J, Li S, Han C. Validation of psychometric properties and development of response criteria for the psoriasis symptoms and signs diary (PSSD): results from a phase 3 clinical trial. *J Dermatolog Treat.* 2019 Feb;30(1):27-34

Mathias SD, Feldman SR, Crosby RD, Colwell HH, McQuarrie K, Han C. Measurement properties of a patient-reported outcome measure assessing psoriasis severity: The psoriasis symptoms and signs diary. *J Dermatolog Treat.* 2016 Aug;27(4):322-7.

### REFLECTS

Gilet H, Roborel de Climens A, Arnould B, Bachelez H, Bagot M, Beaulieu P, Joly P, Jullien D, Le Maître M, Ortonne JP, Paul C, Thibout E. Development and psychometric validation of the REFlective evaLUation of psoriasis Efficacy of Treatment and Severity (REFLETS) questionnaire: a common measure of plaque-type psoriasis severity and treatment efficacy for patients and clinicians. *J Eur Acad Dermatol Venereol.* 2015 Mar;29(3):498-506.

### Sc-QoL

Vinding GR, Esmann S, Olesen AB, Hansen LB, Christensen KB, Jemec GB. Interpretation of the skin cancer quality of life score: a validated quality of life questionnaire for non-melanoma skin cancer. *Dermatology.* 2014;229(2):123-9.

### SDIEQ

Maymone MBC, Neamah HH, Secemsky EA, Vashi NA. Correlating the Dermatology Life Quality Index and Skin Discoloration Impact Evaluation Questionnaire tools in disorders of hyperpigmentation. *J Dermatol.* 2018 Mar;45(3):361-362.

### Sensitive Scale-10

Misery L, Jean-Decoster C, Mery S, Georgescu V, Sibaud V. A new ten-item questionnaire for assessing sensitive skin: the Sensitive Scale-10. *Acta Derm Venereol.* 2014 Nov;94(6):635-9.

### SF-12

Silverberg JI, Gelfand JM, Margolis DJ, Boguniewicz M, Fonacier L, Grayson MH, Ong PY, Chiesa Fuxench ZC, Simpson EL Validation and Interpretation of Short Form 12 and Comparison with Dermatology Life Quality Index in Atopic Dermatitis in Adults. *J Invest Dermatol.* 2019 Oct;139(10):2090-2097

### S-MAPA

Chiesa Fuxench ZC, Callis Duffin K, Siegel M, Van Voorhees AS, Gelfand JM. Validity of the Simple-Measure for Assessing Psoriasis Activity (S-MAPA) for objectively evaluating disease severity in patients with plaque psoriasis. *J Am Acad Dermatol*. 2015 Nov;73(5):868-70.

### Simplified psoriasis index (SPI)

Meah N, Alsharqi A, Azurdia RM, Owens LC, Parslew R, Chularojanamontri L. Assessing the validity and response distribution of the simplified psoriasis index in patients receiving phototherapy. *Australas J Dermatol*. 2018 Feb;59(1):41-47

### U-AIM

Maurer M, Mathias SD, Crosby RD, Rajput Y, Zazzali JL. Validity and responsiveness of the Urticaria Activity and Impact Measure: A new patient-reported tool. *Ann Allergy Asthma Immunol*. 2018 Jun;120(6):641-647.

### UP-Dial

Nochaiwong S, Ruengorn C, Awiphan R, Panyathong S, Noppakun K, Chongruksut W, Chiewchanvit S. Development of a multidimensional assessment tool for uraemic pruritus: Uraemic Pruritus in Dialysis Patients (UP-Dial). *Br J Dermatol*. 2017 Jun;176(6):1516-1524.

### VIPS

Salzes C, Abadie S, Seneschal J, Whitton M, Meurant JM, Jouary T, Ballanger F, Boralevi F, Taieb A, Taieb C, Ezzedine K. The Vitiligo Impact Patient Scale (VIPS): Development and Validation of a Vitiligo Burden Assessment Tool. *J Invest Dermatol*. 2016 Jan;136(1):52-8.

### VIS-22

Gupta V, Sreenivas V, Mehta M, Khaitan BK, Ramam M. Measurement properties of the Vitiligo Impact Scale-22 (VIS-22), a vitiligo-specific quality-of-life instrument. *Br J Dermatol*. 2014 Nov;171(5):1084-90.

### Vulvar Quality of Life Index (VQLI)

Saunderson RB, Harris V, Yeh R, Mallitt RY, Fischer G. Vulvar quality of life index (VQLI) – A simple tool to measure quality of life in patients with vulvar disease. *Australasian Journal of Dermatology* (2020) 61, 152–157

WHOQoL-BREF

Evenhamre K, Ekbäck MP, Lindberg M. Correlations Between Disease-specific DLQI and Generic WHOQOL-BREF Quality of Life Instruments in a Clinical Population with Mixed Dermatological Diagnoses: A Pilot Study. *Acta Derm Venereol.* 2017 Feb 8;97(2):270-272