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## Translation and pre-validation of the Quality of Life in Hand Eczema Questionnaire (QOLHEQ) in Italian

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Hand eczema (HE) is a common multifactorial skin disease. Its estimated 1-year prevalence in the general population is 10%, with higher risk in females and in patients with contact allergy, atopy or exposure to wetwork.<sup>1</sup> HE often becomes chronic recurrent or persistent, impairing the health-related quality of life (HRQOL) of patients and generating a heavy socio-economic burden.<sup>2</sup>

HRQOL impairment in HE can be assessed by means of generic or skin-specific instruments,<sup>2</sup> but the only disease-specific instrument is the Quality of Life in Hand Eczema Questionnaire (QOLHEQ), a 30-item questionnaire assessing HRQOL impairment in four domains: symptoms, emotions, functioning, treatment/prevention. First validated in Germany,<sup>3</sup> QOLHEQ was translated into several languages. A cross-cultural validation study was performed to make international comparison possible.<sup>4</sup>

An Italian version of the QOLHEQ is lacking. We aimed to translate the original English-language QOLHEQ into Italian and to start a validation process in accordance with international guidelines.<sup>5</sup>

The original QOLHEQ ([https://qolheq.dermis.net/content/e1209/QOLHEQ\\_English\\_language\\_version.pdf](https://qolheq.dermis.net/content/e1209/QOLHEQ_English_language_version.pdf)) was translated by two translators with Italian language as their mother language: one was an Italian dermatologist with expertise in HE and aware of the definition of HRQOL and the multidimensional construct of the QOLHEQ, the other was inexperienced in HE and unaware of the definition of the construct and/or individual items. They integrated their translations into a final Italian version of the QOLHEQ. This was administered to consecutive HE patients visited in eight Italian dermatology units affiliated to SIDAPA (Società Italiana di Dermatologia Allergologica, Professionale ed Ambientale), to assess comprehensibility, relevance, completeness, cultural difficulties/differences, validity, internal consistency and reproducibility (measurement error, reliability at test-retest). It was administered twice, on the first visit and after 3 weeks, by the same dermatologists to the same patients, in the absence of treatment changes and significant clinical modifications.

Cronbach's alpha for each subscale, standard error of measurement (SEM) and intraclass correlation coefficient agreement (ICC) were calculated to assess internal consistency, measurement error and reliability at test-retest, respectively.

Sixty HE patients (21 males, 39 females; mean age 41.1±16.6

years, range 18-74) participated in the study. At both the first and the second administration of the questionnaire, neither objections regarding comprehensibility nor difficulties/doubts related to cultural issues emerged during the dialogue with the dermatologists; moreover, all patients agreed on the relevance of the questions and the completeness of the questionnaire with regard to the consideration of the multi-domain impact of HE on HRQOL.

No missing values were recorded. Cronbach's alpha values were between 0.7 and 0.95 for all subscales (symptoms 0.805, emotions 0.880, functioning 0.892, treatment/prevention 0.782). ICC values, overall and for each subscale, were above 0.9 (symptoms 0.952, emotions 0.941, functioning 0.980, treatment/prevention 0.943, overall 0.953). Overall SEM was 0.300, with some variability between subscales (symptoms 0.290, emotions 0.323, functioning 0.189, treatment/prevention 0.342). Further details are shown in Table I.

The literature<sup>5</sup> suggests that a proper process of translation and cultural adaption, matched with optimal response and agreement by patients, as in our case, can be considered a confirmation of adequate assessment of face validity and content validity (comprehensibility, relevance, completeness, cultural difficulties/differences). Cronbach's alpha for all subscales is fully within the 0.7-0.95 range, defined as "optimal",<sup>5</sup> confirming internal consistency. Test-retest suggests very good reliability, with ICC values – overall and for each subscale – above 0.9, well beyond the acceptable threshold of 0.7.<sup>5</sup>

Based on these preliminary data, to be confirmed in a larger multicenter study, this Italian version of the QOLHEQ appears to be a valid and reproducible instrument. Correlation with other HRQOL indexes and evaluation of sensitivity to change, by interpretation of QOLHEQ scores in the light of specific HE severity scoring systems, need to be evaluated in future studies.

Rosella GALLO<sup>1</sup>, Luca STINGENI<sup>2</sup>, Monica CORAZZA<sup>3</sup>,  
Ilaria TRAVE<sup>4</sup>, Silvia M. FERRUCCI<sup>5</sup>, Emanuela  
MARTINA<sup>6</sup>, Maddalena NAPOLITANO<sup>7</sup>, Caterina FOTI<sup>8</sup>,  
Fabrizio GUARNERI<sup>9</sup>\*, SIDAPA CHE Study Group ‡

‡ Members are listed at the end of the paper.

<sup>1</sup>Biomedical SpA, Genoa, Italy; <sup>2</sup>Section of Dermatology, Department of Medicine and Surgery, University of Perugia, Perugia, Italy; <sup>3</sup>Section of Dermatology and Infectious Diseases, Department of Medical Sciences, University of Ferrara, Ferrara, Italy; <sup>4</sup>Section of Dermatology, Dipartimento di Scienze della Salute (DISSAL), IRCCS Ospedale Policlinico San Martino, Genoa, Italy; <sup>5</sup>Unit of Dermatology, Foundation IRCCS Ca' Granda Ospedale Maggiore Policlinico, Milan, Italy; <sup>6</sup>Dermatology Clinic, Department of Clinical and Molecular Sciences, Polytechnic Marche University, Ancona, Italy; <sup>7</sup>Section of Dermatology, Department of Clinical Medicine and Surgery, University of Naples Federico II, Naples, Italy; <sup>8</sup>Department of Emergency and Organ Transplantation, School of Allergology and Clinical, Immunology, Aldo Moro University of Bari, Bari, Italy; <sup>9</sup>Section of Dermatology, Department of Clinical and Experimental Medicine, University of Messina, Messina, Italy

\*Corresponding author: Fabrizio Guarneri, Section of Dermatology, Department of Clinical and Experimental Medicine, University of Messina, viale Annunziata Residence dei Fiori villa 7, 98168 Messina, Italy.  
E-mail: [f.guarneri@tiscali.it](mailto:f.guarneri@tiscali.it)

TABLE I.—Parameters of reliability of the Italian translation of the QOLHEQ questionnaire.

Questions (original questions in English are written in italics) Per favore, indichi la frequenza con cui la dermatite delle mani l'ha messa in difficoltà negli ultimi sette giorni a causa delle ragioni sotto elencate / <i>I have been bothered by the skin condition of my hands...</i>	SEM	ICC coefficient
...è dolorosa / <i>being painful</i>	0.209	0.976
...limita/impedisce la mia attività lavorativa / <i>restricting/impairing me in my job</i>	0.000	1.000
...limita/impedisce i lavori di casa / <i>restricting/impairing me in doing everyday home duties</i>	0.258	0.965
...mi costringe a indossare i guanti / <i>because I have to wear gloves</i>	0.531	0.875
...mi fa sentire frustrata/o / <i>making me feel frustrated</i>	0.214	0.971
...le mani prudono / <i>itching</i>	0.426	0.875
...i trattamenti richiedono tempo / <i>because treatment is time consuming</i>	0.204	0.961
...le mani mi danno fastidio / <i>making me feel annoyed</i>	0.584	0.664
...mi fa perdere ore di sonno / <i>causing loss of sleep</i>	0.144	0.983
...mi fa sentire in ansia per il futuro / <i>making me feel anxious about the future</i>	0.149	0.988
...le mani si spaccano e si formano ragadi / <i>fissuring</i>	0.252	0.953
...limita/impedisce le attività del mio tempo libero (sport, hobby...) / <i>restricting/impairing me in my leisure time activities</i> ( <i>e.g. sports, hobbies</i> )	0.146	0.987
...devo fare uso di creme / <i>because I have to use creams</i>	0.461	0.778
...è un problema quando mi lavo / <i>causing problems washing myself</i>	0.206	0.974
...è un problema quando mi vesto / <i>causing problems dressing myself</i>	0.209	0.977
...sento di dover nascondere le mani / <i>making me feel I have to hide my hands</i>	0.301	0.958
...a causa delle mani, tendo ad evitare il contatto con altre persone / <i>because it leads to me avoiding contact with other people</i>	0.255	0.958
...devo andare dal medico / <i>because I have to visit a physician</i>	0.411	0.895
...mi fa sentire triste/depresso / <i>making me feel sad / depressed</i>	0.258	0.959
...le mani sono arrossate / <i>because of redness</i>	0.425	0.850
...mi rende irritabile / <i>making me feel irritated</i>	0.286	0.953
...devo evitare di toccare certe cose / <i>because I have to avoid contact with certain things</i>	0.252	0.961
...le mani sanguinano / <i>bleeding</i>	0.264	0.962
...gli effetti collaterali della terapia mi preoccupano / <i>because of worrying about side effects of treatment</i>	0.151	0.986
...compromette vita familiare e amicizie / <i>affecting my family life and friendships</i>	0.151	0.985
...i trattamenti sono costosi e a mio carico / <i>because of the treatment costs I have to cover myself</i>	0.357	0.930
...mi fa sentire in imbarazzo / <i>making me feel embarrassed</i>	0.324	0.919
...le mani sono secche e screpolate / <i>because of dryness</i>	0.211	0.947
...mi mette in difficoltà quando tocco i miei familiari o il/la mio/mia partner / <i>when touching my family or partner</i>	0.432	0.909
...mi rende nervoso / <i>making me feel nervous</i>	0.415	0.912
<b>Subscales</b>		
symptoms	0.290	0.952
emotions	0.323	0.941
functioning	0.189	0.980
treatment/prevention	0.342	0.943
<b>Overall</b>	0.300	0.953

SEM: standard error of measurement; ICC: interclass correlation.

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**Conflicts of interest**

The authors certify that there is no conflict of interest with any financial organization regarding the material discussed in the manuscript.

**Authors' contributions**

All authors read and approved the final version of the manuscript.

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**Group author members**

Katharina HANSEL; Alessandro BORGHI; Roberto PINTI; Paolo ROMITA; Roberta GIUFFRIDA; Cataldo PATRUNO.

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## Lichenoid drug eruption during treatment with brodalumab for psoriasis

A 46-year-old man with severe chronic plaque psoriasis, with a Psoriasis Area and Severity Index (PASI) Score of 35, was first evaluated in November 2022. The patient had no significant medical history. He had recently completed a 9-month course of cyclosporine, which initially provided benefit; however, his psoriasis recurred three months after discontinuation. In February 2023, he started treatment with brodalumab at standard doses and showed a good initial response. Before initiating biological therapy, screening tests for HBsAg, HBcAg, and anti-HCV antibodies, anti-HIV antibodies and Quantiferon TB test were performed, all of which returned negative results. After three months of brodalumab treatment, the patient presented with a symmetrical, mildly itchy erythematous eruption of flat-topped, clustered, and confluent papules, primarily on his hips and upper thighs. Dermoscopy revealed lesions topped by fine Wickham's striae with peripheral red globules. No active psoriatic lesions were observed. Examination of the oral cavity also showed white papules and reticular gingival plaques. The patient reported that skin lesions appeared approximately three weeks after starting brodalumab. The patient reported no additional medication use or relevant medical history. Overall, the clinical presentation strongly suggested a lichenoid reaction triggered by brodalumab. Due to the clear clinical and dermoscopic findings and the patient's refusal to undergo further diagnostic procedures, a skin biopsy was not performed. Given the mild symptoms and

excellent psoriasis control, brodalumab therapy was not discontinued. The patient was prescribed corticosteroid therapy with intramuscular injections of triamcinolone acetonide 40 mg every two weeks for four weeks. Four weeks later, the patient reported almost complete remission of skin lesions and associated symptoms. The steroid was then gradually tapered until discontinuation. Lichenoid drug eruption (LDE) is an uncommon cutaneous adverse reaction to various medications. It typically presents as diffuse lichen planus, sometimes with atypical desquamation, and is primarily associated with intense itching. The papules are slightly raised, polygonal, and tend to coalesce, often topped with Wickham's striae. The condition predominantly affects the acral regions, with the trunk being the next most involved area. Involvement of the face and scalp is less prevalent. Mucosal involvement is relatively rare, with the oral mucosa typically being more frequently affected compared to the genital mucosa. The onset of LDE symptoms can be delayed after the initiation of therapy, and the regression is usually slow, complicating the identification of the causative drug. Diagnosis is based on characteristic clinical and histopathological findings. Antihistamines and oral or topical steroids, along with discontinuation of the causative drug, are generally sufficient to achieve remission of signs and symptoms. Discontinuation of the culprit drug is necessary in only approximately 26% of cases, which is notably



Figure 1.—A) White papules and gingival plaques of reticular appearance at the inspection of the patient's oral cavity; similar findings were observed in the contralateral mucosa. B) Dermoscopic appearance of a patient's skin lesion, surmounted by thin Wickham's stripes with peripheral red globules. C) Symmetrical erythematous eruption of flat-topped, clustered papules on the root of the patient's thighs. D) Particular of clustered and confluent lesions on the patient's right hip: at the level of the gluteus, a major lesion can be seen covered by typical Wickham's stripes.