INDIVIDUAL BURDEN OF PSORIASIS (I-BOP) 
CONSTRUCTION AND VALIDATION OF A NEW SCORE 

Khaled Ezzedine, MD, 2 Françoise Maciari, MD, 1 Anne Claire Fougerousse, MD, 3 
Jean-Benoît Monfort, MD, 4 Ziad Réguaï, MD, 5 Jason Shourick, MD, 6 Charles Taieb, MD 7,8

1 La Varenne Saint Hilaire, 2 EA EpiDermE UPE3-Université Paris-Est Créteil, 
3 Hôpital d’Instruction des armées, Saint-Mandé, France, 4 Hôpital Cochin, Paris, France, 
5 Polyclinique Courlancy, Reims France, 6 Université Paris Sud , 7 FINARAD, 8 European Market Maintenance Assessment, France

RATIONNEL
Although tools for the assessment of quality of life, symptoms or disease extent in psoriasis exist, there is yet no questionnaire assessing the individual burden of the disease. Though, the concept of "burden" has an important role in the evaluation of care and management of chronic skin diseases.

OBJECTIVE
In this context, we aimed to create a questionnaire that allows the assessment of the disability, in the broad sense of the term, associated with psoriasis.

METHOD
For this purpose, we used a classical methodology for the construction of a psoriasis-specific burden tool that consists of three phases: concept, development and validation.

RESULTS
The exploratory phase or initial concept was structured around verbal exchanges and several face-to-face meetings between dermatologists, psychologists, social workers and PRO experts. It allowed to consolidate a first wording. The restitution of this wording, supported by a literature review, allowed to exhaustively collecting the complaints and the feelings of patients with psoriasis. Description, analysis and synthesis of this wording gave the opportunity to identify the most relevant concepts: "Relations with others", "Economic consequences", "Impact on work", “Effects on everyday life" and "Impact on sexuality and libido". 56 items were created, prioritized and transformed into the same number of questions. This conceptual questionnaire was formatted using a Likert scale with 7 possible answers. During a principal component analysis, non-discriminative redundant or contradictory questions were removed to obtain the most robust and the shortest possible questionnaire: 18 items were retained and formed the conceptual questionnaire.

This questionnaire will be administered to a weighted sample of at least 208 subjects with exclusively cutaneous psoriasis of different typology and severity in order to realize an exploratory analysis.

This exploratory analysis was carried out [integrating Scree Plot (Figure 1) and Cross Factor Loading]. At the end of this analysis 10 items were identified and selected.

Using standardized regression analysis, 2 dimensions were highlighted (Figure 2): "The look of others" composed of 4 questions; "the look at oneself" [6 questions].

This questionnaire will be administered to a weighted sample of at least 550 subjects with exclusively cutaneous psoriasis of different typology and severity in order to finalize its validation (internal and external).

Concerning its reliability, Cronbach's alpha coefficient was 0.9 for the entire questionnaire, reflecting its excellent internal coherence. The I-BOP correlated highly with other validated questionnaires:

Correlation coefficients between I-BOP and validated questionnaires (SF12, Stress, DLQI) were relatively high, confirming their strong association and thus, I-BOP’s external validity (Table I). The I-BOP results can be expressed as a total score between 0 [no impact] and 50 [highest possible impact]

DISCUSSION
There has been so far no specific instrument available to assess the burden of Psoriasis. The current report provides support of I-BOP’s feasibility, reliability, and validity as a specific instrument designed to fill this unmet need. With its 10 items, the I-BOP is relatively short and easy to use. The questions are simple and easy to understand so that it can be used by anyone. I-BOP will likely facilitate communication between patients and healthcare providers, create a real opportunity for the practitioner to better understand the multiple issues lived up by the patients.