



PSORIASIS

## A “WHOLE-PATIENT VIEW” AND QUANTIFICATION OF SECUKINUMAB TREATMENT BENEFITS ON PSORIASIS AND PSORIATIC ARTHRITIS PATIENTS

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**Introduction & Objectives:** Traditionally, clinical endpoints for psoriasis (Pso) and for psoriatic arthritis (PsA) are composite scores meant to summarize in single numbers complex sets of patients' signs, symptoms, and measures of physical and mental well-being. The objective of this investigation is to better assess the outcome of Pso and PsA disease manifestations, their time course, and their treatment response to secukinumab beyond the use of numerical composite endpoints, such as PASI, ACR20/50, and PASDAS. We provide in-depth visualization of skin scores (erythema, scaling, thickening), joint tender and swelling scores, enthesitis, dactylitis, etc., in terms of “whole-patient views” to explore associations between the anatomical, functional and general disease burden assessments.

**Methods:** Extensive static and interactive visualization techniques are used to explore associations between the location and magnitude of individual scores (skin, joint, enthesitis, nail etc.), and patient and physician global assessments. Groups of patients with similarly affected areas are identified through unsupervised learning methods. Data consist of anatomical and functional assessments recorded on every patient at numerous visits in the course of two studies in Pso, comparing secukinumab and ustekinumab (CLEAR and CLARITY), and one placebo controlled study in PsA (FUTURE-5); this database includes over 3500 patients followed for at least 52 weeks.

**Results & Conclusion:** This new “whole-patient view” approach, together with advanced statistical learning and visualization, provides a detailed and nuanced understanding on the benefits of secukinumab on Pso and PsA patients. By considering the individual components of multiple composite scores, more granular information on burden of disease,





patterns, kinetics of response and correlations, that might go undetected in text-based data, can be obtained.

