

## AB004. Evaluating differences in meaningful change in disease activity between different races and clinical subtypes affected by cutaneous lupus erythematosus

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Abstract: Cutaneous lupus erythematosus (CLE) has a profound impact on a patient's quality of life (QoL), despite epidemiologic differences disease presentation. Disease activity, rather than damage, has a greater impact on QoL, and improvement in disease activity, defined by the Cutaneous Lupus Disease Area and Severity Index score for activity (CLASI-A), is correlated to improvement in QoL. We aimed to evaluate the differences between meaningful improvement in disease activity, experienced by Caucasian and African-American patients and disease subtypes. This study included 144 patients seen at the Hospital of the University of Pennsylvania who participated in a longitudinal research database of lupus patients. Patients with an initial CLASI-A ≥4 were included, and classified by their self-identified racial background and clinical disease

subtype. Linear regression models were used to calculate change in disease activity needed to predict meaningful improvement in QoL, defined as a respective 9.38-point in the Emotions subscale of Skindex-29. Due to the limited number of patients with acute CLE, we compared meaningful improvement between patients with discoid lupus erythematosus (DLE) and patients with subacute CLE (SCLE). An improvement of disease activity by 58.6% and 52.5% is associated with a meaningful impact on the Emotions subscale of Caucasian and African-American patients, respectively. Decreasing disease activity by 52.1% and 55.2% is meaningful for patients with DLE and SCLE, respectively. Regardless of individual differences in disease activity and presentation of CLE, patients experience improvement in QoL, particularly in the emotional component, with similar meaningful changes in their disease activity.

**Keywords:** Cutaneous lupus erythematosus (CLE); disparities; quality of life (QoL); patient-reported outcomes; efficacy measures

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