

9. **Olivia Stein**, Jennifer LF. Lee, Evelyne Vinet, Arielle Mendel, Christian A. Pineau, Fares Kalache, Louis-Pierre Grenier, Sasha Bernatsky.

McGill University, Montreal QC.

Artificial Intelligence-based Online Symptom Assessment Tools for Systemic Lupus Erythematosus (SLE) Diagnosis: Patient Perspectives.

To identify perceptions of SLE patients regarding artificial intelligence (AI)-based online symptom assessment tools, regarding their potential to address diagnostic barriers.

Adults from our SLE research cohort were invited to participate in 60-90 minute virtual focus groups concerning their experiences obtaining an SLE diagnosis and perspectives on patient-facing online symptom assessment tools to assist/expedite diagnosis. Sessions were facilitated by trained moderators using standardized questions and included a demonstration of an AI-based symptom checker application. An inductive thematic data analysis was used to code the transcripts and generate themes/sub-themes.

Twenty-four patients participated in four focus groups (two in English, two in French). The mean age (standard deviation) was 50.4 (9.7) years and the mean duration (standard deviation) since SLE diagnosis was 19.1 (8.8) years. Most (92%) of participants were female and 50% were White, with the remainder being Asian, Black, Hispanic or Indigenous. Themes concerned the following: 1) diagnostic journeys including barriers to timely SLE diagnosis, 2) familiarity with online health tools, 3) perceived benefits and 4) concerns regarding AI symptom assessment tools. The most prominent benefits identified were symptom awareness and validation, encouragement to seek care, and facilitation of healthcare discussions. Numerous concerns were expressed including narrow usefulness given SLE complexity, structural limitations relating to healthcare access and provider receptiveness, the possibility of misinformation, and minor issues of data privacy.

Our study provides SLE patient perspectives on the benefits and limitations of AI-based online symptom assessment tools in addressing diagnostic delays of a complex diagnostic condition.