

SUPPLEMENTARY MATERIAL

Development and Validation of Visual Medical Scale to Evaluate Nail Psoriasis Severity (ViSENPsO®)

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Supplementary Figure 1. Representative patient photographs across ViSENPsO severity levels

A. Severity level 0



B. Severity level 1



C. Severity level 2



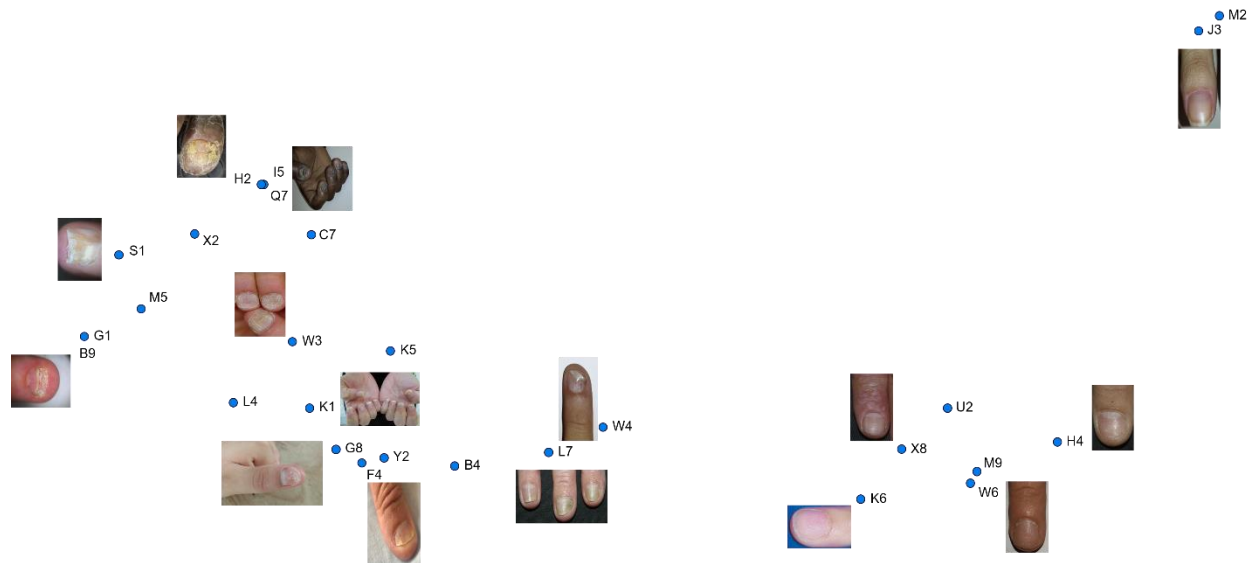
D. Severity level 3



E. Severity level 4



Supplementary Figure 2. Multidimensional scaling for 5-level rating pile sort, showing approximate clustering for rating categories with selected thumbnail photographs showing gradation of nail damages



Source: Drs. Cláudio de Lélis Filgueiras de Souza and Renan Minotto provided photographs showing the progression of nail damages for the 5-level rating pile sort.

The multidimensional scaling diagram illustrates the relative positioning of the histopathology-verified nail psoriasis photographs based on clinician pile-sort ratings during the concept elicitation exercise. Each point represents a photograph, and distances between points reflect similarity in clinician severity ratings. Clustering patterns demonstrate agreement among clinicians for lower and higher severity levels, while intermediate cases appear closer together, reflecting boundary distinctions between adjacent severity categories.

Note: Multidimensional scaling is traditionally applied to unconstrained sorting tasks. However, we adapted it to a unidimensional rating scale to visualize clustering density and identify

exemplars at category boundaries. The resulting horseshoe pattern reflects this less typical exploratory application of multidimensional scaling.