

# AI system could help clinicians assess psoriasis severity

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An artificial intelligence (AI) system could aid clinicians in assessing

psoriasis severity, according to a short report published online June 28 in the *Journal of the European Academy of Dermatology and Venereology*.

Takashi Okamoto, from the University of Yamanashi in Japan, and colleagues developed a simplified Psoriasis Area and Severity Index (PASI) system (Single-Shot PASI) and associated AI models capable of assessing psoriasis severity. Model development used 705 psoriasis images of a patient's trunk front and back, and 10 images were used to validate the deep learning system.

Thirteen board-certified dermatologists or residents and nine [medical students](#) scored test sets without AI assistance and subsequently referred to the AI scores, then reevaluated their previous scores. With AI assistance, mean absolute differences from AI scores and [standard deviation](#) among evaluators were significantly reduced.

"For dermatologists, the Single-Shot PASI system reduces the burden of scoring psoriasis severity. Even when the AI scores of the Single-Shot PASI system are not directly used, referencing them reduces deviations in the evaluation between dermatologists," the authors write.

"Furthermore, the Single-Shot PASI system and our AI application can be an instant tool to objectively check psoriasis severity for patients with psoriasis. Finally, we hope that the Single-Shot PASI system will be used by many dermatologists and patients."

**More information:** T. Okamoto et al, Artificial intelligence for the automated single-shot assessment of psoriasis severity, *Journal of the European Academy of Dermatology and Venereology* (2022). [DOI: 10.1111/jdv.18354](https://doi.org/10.1111/jdv.18354)

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