

# AI model predicts risk for age-related macular degeneration

May 27 2020

---



(HealthDay)—A new artificial intelligence algorithm can predict risk for

age-related macular degeneration (AMD), according to a study published in the April issue of *Translational Vision Science and Technology*.

Alauddin Bhuiyan, Ph.D., from iHealthScreen Inc. in New York City, and colleagues used 116,875 color fundus photos from 4,139 participants of the Age-related Eye Disease Study to develop a machine learning technique that can predict risk for progression to late AMD within one or two years. This model, which includes sociodemographic and [clinical data](#), was validated using data from the Nutritional AMD Treatment-2 (NAT-2) study.

The researchers found that for identification of early/none versus intermediate/late (e.g., referral level) AMD, the model achieved 99.2 percent accuracy. Overall, for a two-year incidence of late AMD (any), the prediction [model](#) achieved 86.36 percent accuracy, with 66.88 percent for late dry AMD and 67.15 percent for late wet AMD. Using data from the NAT-2 study, the two-year late AMD prediction accuracy was 84 percent.

"Validated color fundus photo-based models for AMD screening and risk prediction for late AMD are now ready for clinical testing and potential telemedical deployment," the authors write.

**More information:** [Abstract/Full Text](#)

Copyright © 2020 [HealthDay](#). All rights reserved.

Citation: AI model predicts risk for age-related macular degeneration (2020, May 27) retrieved 24 April 2024 from <https://medicalxpress.com/news/2020-05-ai-age-related-macular-degeneration.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private

study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.