

AI model predicts risk for age-related macular degeneration

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(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 <u>clinical data</u>, 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 <u>model</u> 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: <u>Abstract/Full Text</u>

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