

# Test helps ID patients for home monitoring device for progression of AMD

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Use of a qualification test within a retinal practice appeared to be effective in predicting which patients with intermediate age-related macular degeneration (AMD) would be good candidates to initiate use of a home monitoring device for progression to more severe AMD, according to a study published online by *JAMA Ophthalmology*.

Choroidal neovascularization (CNV; creation of abnormal blood vessels) from AMD left untreated or unmanaged after substantial vision loss has occurred remains a leading cause of irreversible blindness in people age 50 years or older throughout much of the world. In the United States, approximately 8 million people have intermediate AMD or monocular advanced AMD of whom 1.3 million people will develop advanced AMD during the ensuing 5 years. Patients with intermediate AMD using a home monitoring device (includes looking at a computer screen and using a mouse) have less loss of visual acuity, on average, at detection of choroidal neovascularization than do individuals using standard care monitoring techniques (such as viewing a grid on a piece of paper). Patients must establish a baseline set of responses during a limited series of initial home testing to monitor AMD progression using this device. There is little known about the proportion of patients with high-risk non-neovascular AMD who may be able to incorporate the device successfully into their home monitoring regimen, according to background information in the article.

The developers of the home device designed an in-office qualification test to identify individuals most likely to be able to use the device

successfully. Neil M. Bressler, M.D., of the Johns Hopkins University School of Medicine, Baltimore, and Editor, *JAMA Ophthalmology*, and colleagues studied 131 participants within a university-based retina practice with intermediate AMD in at least one eye who completed an in-clinic qualification test for the home monitoring device. The qualification test protocol included a short explanation by the study coordinator, explanatory tutorial administered through the device, a trial or practice test administered through the device (an opportunity to mark areas of artificial distortion), an opportunity for the participant to ask the coordinator questions, and the actual qualification test.

A total of 129 participants had reliable qualification test results; 91 participants (70 percent) who completed this test attained a score that suggested they would be able to successfully use the home device. Among the 91 participants who could initiate home testing, 83 did so, including 80 participants (88 percent) who established a baseline value that could be used as a reference for future monitoring. Younger participants were more likely to qualify for home testing. Visual acuity at study enrollment did not appear to be associated with successful qualification.

"These data support the likelihood that a larger percentage of individuals at high risk of progressing to CNV from AMD who successfully complete a [qualification test](#) to use this home monitoring device will be able to establish a baseline value for subsequent monitoring at home. These individuals can continue to increase their chance of detecting neovascular AMD between scheduled office visits while the lesion is relatively small and associated with [visual acuity](#) that is relatively good," the authors write.

**More information:** *JAMA Ophthalmol.* Published online October 15, 2015. [DOI: 10.1001/jamaophthalmol.2015.3684](https://doi.org/10.1001/jamaophthalmol.2015.3684)

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