

BRINGING AMD OUT OF THE DARK

The MacuLogix AdaptDx diagnostic system illuminates age-related macular degeneration (AMD)

AMD remains the leading cause of adult blindness – a result not only of limited treatment options but also diagnostic failings. Even experienced ophthalmologists miss 25 percent of AMD cases (1), meaning that diagnosis often is made only after irreversible visual acuity loss. Indeed, 78 percent of patients exhibit substantial vision loss at first treatment, and 37 percent are effectively blind in one eye. How can we address the problem?

The obvious solution is to improve our diagnostic capabilities. Identifying AMD in its early stages would allow treatment of AMD before it causes irreversible damage. For example, AREDS2 nutritional supplements can reduce disease progression by 30 percent. This early diagnosis–proactive treatment paradigm is the logic behind MacuLogix' AdaptDx system. AdaptDx is a novel automated dark

adaptometer, similar in operation to visual field analyzers used in glaucoma. Without any need for pre-adaptation or dilation, the device induces photobleaching by a brief, non-irritating flash; immediately afterwards, it measures the Rod Intercept (RI) – the time for the eye to adapt from bright light to darkness at a standard threshold stimulus. “RI is 90 percent AMD-specific and sensitive,” states Gregory Jackson, PhD (Chief Technology Officer). AdaptDx enables AMD diagnosis at least three years before it becomes apparent in structural exams, which, in turn, allows monitoring and early treatment to delay disease progression and preserve vision.

With FDA clearance and an established CPT Code (92284) for reimbursement, AdaptDx is now broadly available for clinical use. Ideally, it should be used to screen all patients over age 50, especially those with night vision complaints. Such screening would both uncover the true prevalence and – as more patients are diagnosed at earlier stages – provide motivation to develop better treatments for early and intermediate AMD. As William McPhee

(CEO) summarizes: “Our goal is to eliminate blindness caused by AMD by changing the trajectory of AMD diagnosis, management and treatment with the AdaptDx.”

Reference

1. DC Neely, et al., “Prevalence of Undiagnosed Age-Related Macular Degeneration in Primary Eye Care”, *JAMA Ophthalmol.*, 135, 570–575 (2017). PMID: 28448669.

