The Optometric Trends Discovery Group's
2023 Report on

Dry AMD & Geographic Atrophy: INSIGHTS & TRENDS

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Dry age-related macular degeneration (AMD)

is a common eye disorder marked by the gradual loss of central vision due to the thinning and aging of macular tissues. Geographic atrophy (GA), an advanced form of dry AMD, involves the progressive and irreversible degeneration of retinal pigment epithelial cells, leading to further loss of vision, often in the center of the visual field.

Here we'll review data from the 2023 Optometric Trends Discovery Group (OTDG) Survey to gain insights into the clinical practice patterns and opinions of US optometrists as they relate to dry AMD and GA.

Diagnosing and Monitoring of Dry AMD and GA

On average, survey respondents report that they see 30 patients per month that have dry AMD. Among various forms of this condition, there seems to be an inverse relationship between severity and prevalence as 60% of dry AMD patients have early dry AMD, 32% have intermediate dry AMD, and 18% have GA.

As shown in Figure 1, respondents use a wide variety of tools to diagnose dry AMD, but two techniques, fundus photos and OCT, are by far the most widely used techniques.

It's not just about diagnosis though. Dry AMD and GA are progressive diseases and monitoring their progression is crucial. A majority (60%) of respondents see their dry AMD patients every 4-6 months, and 30% of respondents indicated that they see their patients less frequently than every 6 months.

The key factors for eye care providers is to convey that GA is a common, progressive, and irreversible condition that can result in significant vision loss in patients with dry AMD. Around 20% of legally blind AMD patients are attributed to GA. Asymptomatic nature and good Snellen visual acuity during examinations may lead to patients and doctors overlooking disease progression. Regular follow-up examinations and proper diagnostic testing are crucial for a positive prognosis. On average, respondents believe that it takes a patient about 3 years to progress from first non-central GA to central GA, and none believe this occurs in less than a year. There is no clear consensus from the literature on how long this takes to occur, study found atrophic lesion size on average by 1.57-1.85 mm^2 (depending on imaging method) over the course of a year.[1]

Though visual acuity loss (78%) and progression of drusen and/or pigment abnormalities (75%) were the most used hallmarks to monitor progression of dry AMD, there wasn't a clear consensus and all options including detection of exudations/onset of choroidal neovascularization (CNV), patient-reported quality of life impacts, and atrophic lesion growth were all cited by at least 47% of respondents.

Many companies are exploring artificial intelligence for detecting and monitoring GA, but due to the lengthy FDA approval process, immediate availability is unlikely. In the meantime, we will rely on human intelligence to look for the biomarkers that can tell us about the presence or progression of GA.

1. Schmitz-Valckenberg, S., Sahel, J. A., Danis, R., Fleckenstein, M., Jaffe, G. J., Wolf, S., ... & Holz, F. G. (2016). Natural history of geographic atrophy progression secondary to age-related macular degeneration (Geographic Atrophy Progression Study). Ophthalmology, 123(2), 361-368. Chicago

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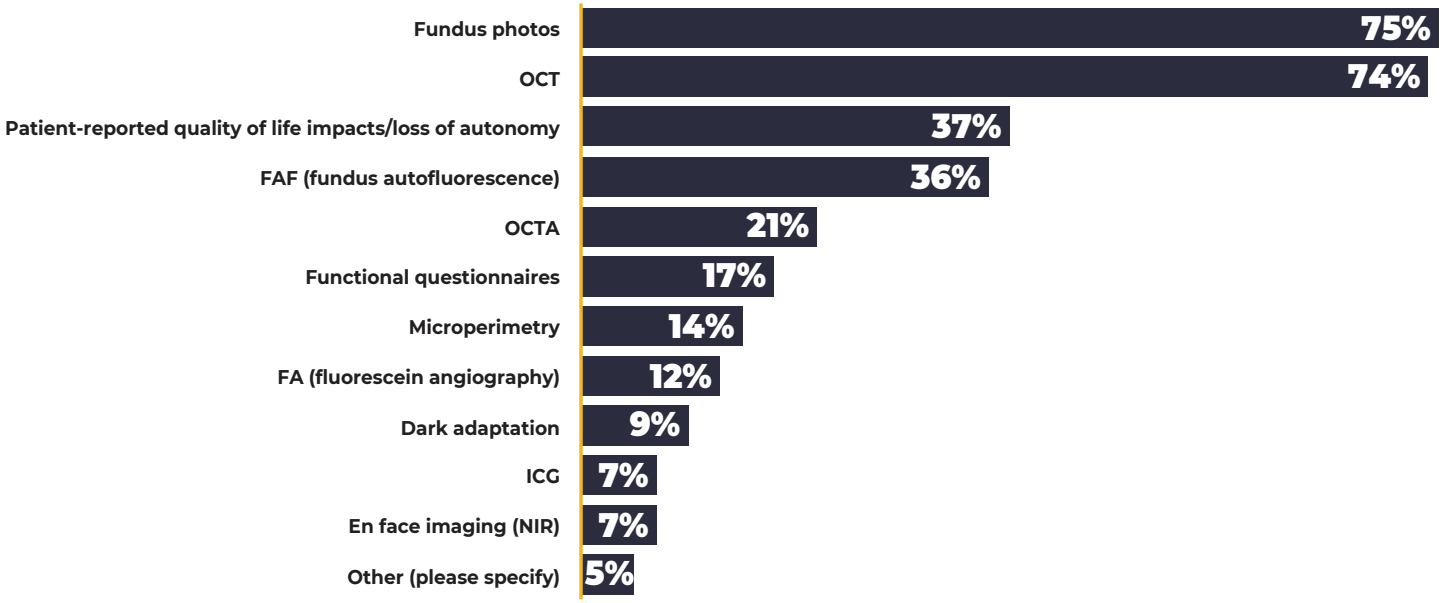

FIGURE 1. ***What are all the techniques that you use at the time of diagnosis for dry AMD patients? (Select all that apply.)***

Managing Dry AMD and GA

As shown in Figure 2, a wide variety of methods are employed for managing dry AMD. The top two strategies utilized were closely monitoring through regular checkups and prescribing vitamins and/or AREDS supplements, both cited by 88% of respondents. The next most common methods, lifestyle modification and directing patients to self-assess.

On the topic of lifestyle modification, smoking cessation, adopting a good diet, engaging in regular exercise, and managing comorbidities like cardiovascular disease, hypertension, and lipid disorders are important factors to treating this GA. Patient education, dietary supplements when necessary, and addressing habits are essential.

Like diabetic retinopathy, persistently conveying messages to patients is important. Elderly patients with AMD may have other medical conditions, including dementia and Alzheimer's, requiring attention, and impacting self-care. Sensitivity to the psychological aspects of AMD and vision loss is vital when dealing with patients affected by geographic atrophy, neovascular AMD, or associated vision loss. Providing comprehensive care and support helps in managing these conditions effectively.

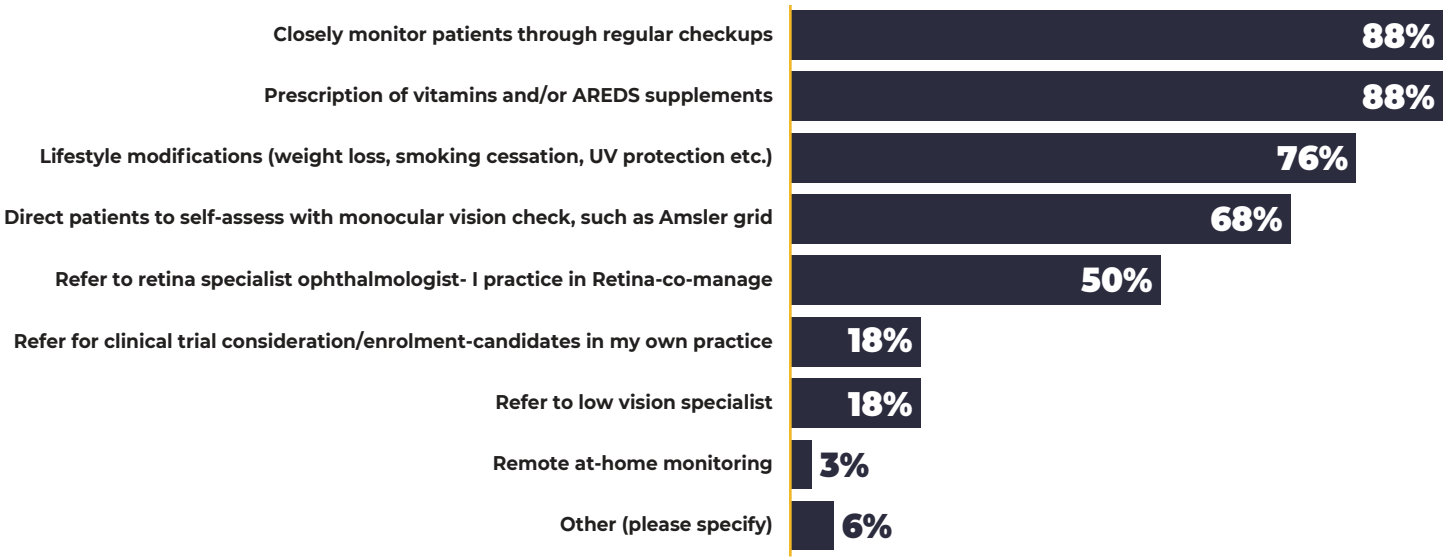

FIGURE 2. ***How are you managing your dry AMD patients? (Select all that apply)***

Treating Dry AMD and GA

There are emerging treatments that are both exciting and promising. Complement inhibition of both C3 and C5 have shown promise in slowing the growth of geographic atrophy in clinical trials, resulting in a recent FDA approval of the first treatment ever, pegcetacoplan. Even more recently, the FDA approved avacincaptad pegol for the treatment of GA. These results are very promising, and thankfully we have something to treat patients with GA. Among primary concerns with emerging treatments for GA, conversion to nAMD was by far the most commonly cited at 68%. Recent concerns have also risen with seven total non-occlusive/occlusive retina vasculitis reported. Intraocular inflammation remains a concern with many intraocular treatment modalities.

As shown in Figure 3, the most commonly selected measures indicating effective treatment of GA included stability of visual activity (67%), stability of visual quality (60%), and stability of quality of life (52%). However, every option received selection from at least 27% of respondents highlighting that the evaluation of treatment efficacy for GA is multi-faceted and cannot be reduced to a single metric. A holistic approach is required when assessing effective treatment, taking into account not only the direct impact on vision but also the broader influence on a patient's quality of life.

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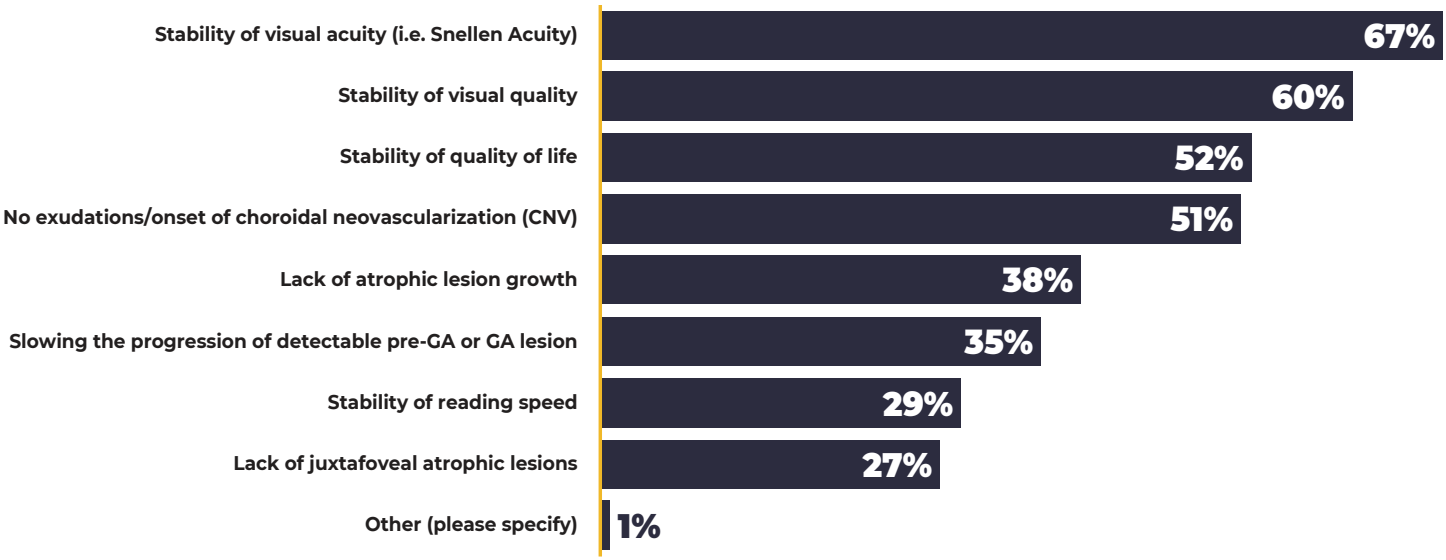

FIGURE 3. ***Which of the following do you use as measures of effective treatment of geographic atrophy (GA)? (Select all that apply)***

Referring Out Dry AMD and GA Patients

Optometrists refer AMD patients to ophthalmologists or retinal specialists when there is dry AMD and unexplainable vision loss or distrubance, and in cases of suspected or confirmed neovascular conversion (nAMD). Historically GA may not have been referred, however, with available therapies we will expect a paradigm shift in GA referral. Therefore, the role of optometrists in referring these patients is essential for initiating timely and appropriate care, potentially delaying disease progression and preserving vision. Sometimes helping the patient requires referring them out to a specialist for treatment.

As shown in Figure 4, the most common criteria used to refer patients to a retina specialist is the presence of neovascular nets on OCT (84%) and worsening of BCVA (64%). Only 25% of respondents refer patients to a specialist when initially diagnosing them with dry AMD or GA.

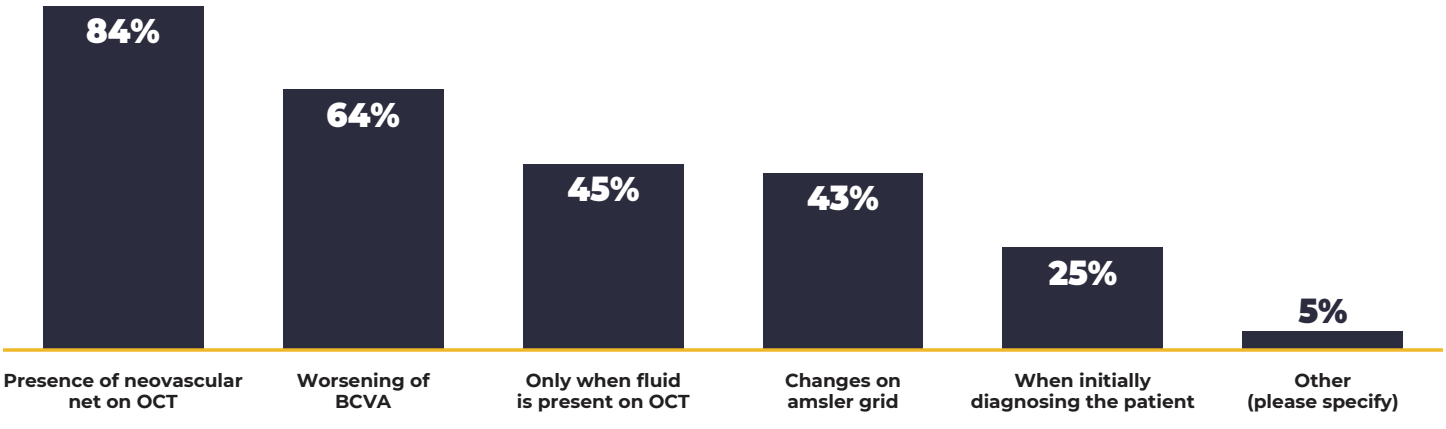

FIGURE 4. ***What criteria do you use to refer out patients with nAMD or GA to retina specialists? (Select all that apply)***

Did you KNOW?

30
average number of patients seen per month that have dry AMD

60%
of respondents see their dry AMD patients every 4-6 months

3 years
amount of time respondents believe it takes for a patient to progress from first non-central GA to central GA

Among dry AMD patients

Early dry AMD

Intermediate dry AMD

Geographic atrophy

The Optometric Trends Discovery Group

(OTDG) Survey was launched on February 4, 2023. The survey included 141 questions developed and reviewed with the OTDG leadership board. The survey questions explored doctors' understanding and current practice patterns across a number of areas of optometric care, including presbyopia, astigmatism, corneal therapeutics, ocular surface disease, glaucoma, lid management, corneal refractive surgery, dry AMD and geographic atrophy, and myopia management.

Nearly 300 optometrists responded to the survey which was closed in mid-March 2023. You can access interpretive reports on additional OTDG topics as they are released by visiting otdg.tfgeducation.com or scanning the QR code.

Meet the Board

Meet the Author

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Dr. Mohammad Rafieetary is a consultative optometric physician at the Charles Retina Institute. He is a graduate of Boston University and has received his Doctor of Optometry from the University of Missouri-St. Louis. Following his Primary Care Optometry and Ocular Disease Residency at the Southern College of Optometry (SCO) and the Memphis Health Center, and until 1996 he served on faculty and as the Chief of Ocular Disease at SCO. Dr. Rafieetary is a Fellow of the American Academy of Optometry (AAO), the immediate past Chair of the Retina Interest Group (SIG), and President and fellow of the Optometric Retina Society (ORS).

Dr. Rafieetary is a Diplomate of the American Board Optometry and serves on the Board of Directors of ABO and Diplomate of the American Board of Certification in Medical Optometry.

Dr. Rafieetary's clinical practice is dedicated to conditions of the posterior segment; he frequently publishes in professional journals and lectures on posterior segment topics.