

MONITORING AMD FROM HOME

How Telemedicine is Making Way for Better Patient Outcomes & Stronger Optometric Practices



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Dear Colleagues,

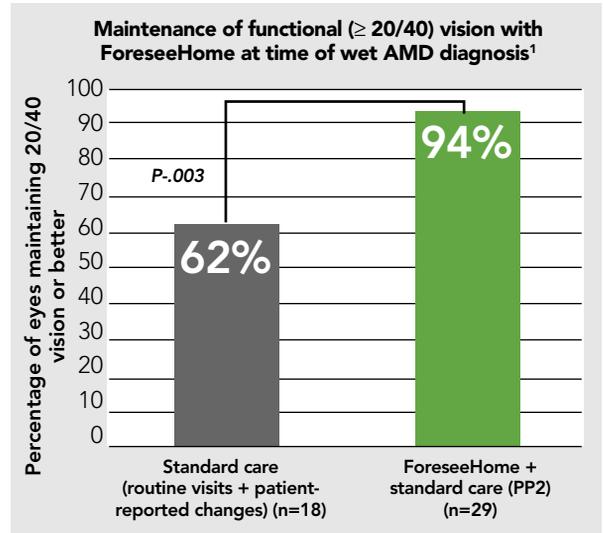
Early diagnosis of neovascular, or wet, AMD is essential for preserving functional vision.¹ Lesions at the onset of choroidal neovascularization (CNV) grow faster, resulting in more rapid vision loss than later-stage lesions.¹ On average, patients with 20/40 visual acuity (VA) or better at diagnosis of wet AMD reportedly have maintained that level of vision at one and two years following anti-vascular endothelial growth factor (anti-VEGF) treatment.¹ We know that even highly successful treatment will not restore useful vision (reading, driving, etc.) if VA is poor at the beginning of treatment.¹

Yet, based on real-world data, as few as 17.5% of patients have a baseline VA of $\geq 20/40$ (Snellen equivalent) at treatment initiation.² Furthermore, the Amsler grid is not very effective in detecting early wet AMD ($\geq 20/40$); one study showed it was only effective in detecting 9% of such patients.³ And wet AMD may be present for six to 12 months before detection and treatment is initiated.¹

Fortunately, advanced technology is available for early detection and characterization of central and paracentral metamorphopsia in AMD patients to help monitor the progression of intermediate AMD. In an unmasked, controlled, randomized clinical trial (HOME) of 1,520 subjects with a mean age of 72.5 years at high risk of CNV developing, 94% of patients who progressed to wet AMD retained functional vision ($\geq 20/40$) using ForeseeHome vs. just 62% of patients using standard detection methods alone.⁴

The independent Data Safety and Monitoring Committee (DSMC) recommended that the HOME Study be terminated early because ForeseeHome remote monitoring demonstrated significantly fewer letters of vision loss at incident CNV resulting in early detection of CNV compared to standard care alone.⁴ In fact, several clinical trials have revealed that lesion sizes were significantly smaller at wet AMD diagnosis with ForeseeHome vs. standard care alone.^{4,5-7}

Once patients are identified as candidates for ForeseeHome remote monitoring,^{4,8} setup and daily tests are quick and easy for patients, and doctors control how alerts—sent when a significant change occurs from baseline—are managed.⁸ Patients who use the ForeseeHome system are enrolled in a monitoring



The HOME Study—an unmasked, controlled, randomized clinical trial of 1,520 participants 53 to 90 years of age with intermediate AMD at high risk of CNV—compared home monitoring with ForeseeHome plus standard care vs. standard care alone to determine if addition of the home monitoring device improved visual acuity at the time of CNV detection. With ForeseeHome, 94% of patients who progressed to wet AMD retained functional vision ($\geq 20/40$) vs. only 62% of patients using standard detection methods alone.⁴ Researchers used the ETDRS chart to measure the number of letters for visual acuity. The Snellen equivalent for visual acuity is presented here. Refer to reference 4 for specificity and sensitivity information. Image: Notal Vision

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program provided by the Notal Vision Diagnostic Clinic, a remote diagnostic clinic that is directed by practicing ophthalmologists and supported by certified ophthalmic professionals. Artificial intelligence-enabled patient data analysis is relayed to the practitioner via an online portal and in the form of alerts as well as monthly testing summary reports. Beneficially, the technical component and monthly monitoring service of the ForeseeHome AMD Monitoring Program are covered by Medicare. The Notal Vision Diagnostic Clinic offers a full-service patient financial services department that works with all insurance plans to

determine and secure the best possible coverage.

Given that research reveals the importance of detecting the conversion to wet AMD as early as possible, optometrists now have a unique opportunity to proactively monitor their intermediate dry AMD patients who are at risk of neovascular progression. This will foster earlier disease detection and yield better visual outcomes for patients. At the same time, eye care providers stand to bolster their practices by providing a greater spectrum of care for patients and by strengthening the doctor-patient relationship.

— Mark Dunbar, OD, FFAO

EVOLUTION OF THE MEDICAL OD & AMD MANAGEMENT

Dr. Dunbar: How has the role of the optometrist changed over the last 20 years to encompass more of a “medical” model of patient care?

Dr. Dierker: Our aging population, combined with a predicted shortage of ophthalmologists, provides a huge opportunity for optometrists to embrace the medical model. Historically, we focused on management of acute anterior segment conditions (trauma, red eyes, etc.), and identification and management of early glaucoma. Retina was considered much more challenging. Could optometrists actually provide care for patients with diabetic retinopathy and AMD? With our education and training, combined with improvements in technology to aid in diagnosis and monitoring for progression, retina care is now an integral part of the medical services we can provide.

Dr. Haynes: Optometrists have truly become the primary eye care physician on the front lines of patient care, including medical eye care. In many ways, this evolution to a more medically-based practice has become a necessity. Conditions related to aging, such as AMD and glaucoma, continue to grow in prevalence. The same is true with retinal vascular disease related to chronic conditions, such as diabetes and hypertension. As the number of patients needing care has grown, optometrists have stepped up to the plate to meet this demand. Some of these patients require surgical interventions provided by ophthalmologists, but the majority are still primarily managed by optometrists.

Dr. Gerson: Over the last two decades, there has been a realization

that ODs can, and frankly are needed to, help take care of medical eye care. A fact that is not insignificant is that more states now allow for medical care through prescription rights and other scope of practice rules. With these rights come responsibilities that are taken seriously. Also, with these rights comes validation by, and more attention from, pharmaceutical companies, instrument manufacturers, and other industry groups that will further allow us to make use of these rights.

Another factor is technology. The technology of today is much different than 20 years ago, and enables a higher standards of care with more confidence. In particular, OCT makes diagnosis of macular disease much easier and more confident, and programs such as ForeseeHome serve as an adjunct to SOC to decrease the likelihood of irreversible vision loss.

Dr. Dunbar: The evolution of the medical model for optometry began much further back than 20 years. I think it has evolved over the past 35 years, since a dilated fundus exam became the standard of care for primary eyecare in optometry and coupled with the birth of co-management for cataract surgery. As optometry shared in the responsibility for postoperative cataract care, treating with therapeutic agents became more common, and the comfort level and confidence of optometry using therapeutics increased. While this was occurring, expansion in the scope of practice across the country led to new opportunities to manage and treat glaucoma, as well as

follow patients with macular degeneration and diabetic retinopathy. Further, an aging population resulted in more patients with ocular disease, and there became a greater need and demand for the eye care community, including optometry, to step up and care for these patients.

The biggest jump for an expanded role for medical eye care in optometry came with the development of OCT imaging, which essentially put optometry on a level playing field with ophthalmology to better diagnose, manage, and appropriately refer patients when needed for specialty care.

BETTER UNDERSTANDING DISEASE AND AT-RISK PATIENTS

Dr. Dunbar: Why is it important for optometrists to understand the stages of, and monitor, age-related macular degeneration, in particular dry AMD patients at risk of converting to wet AMD?

Dr. Dierker: I think we tend to underestimate the risk of our intermediate AMD patients (exhibiting any large drusen and drusen with pigmentary changes) to convert to advanced disease. Given that many of these patients will progress to CNV or sight-threatening geographic atrophy (GA) over about five years,⁹ you really

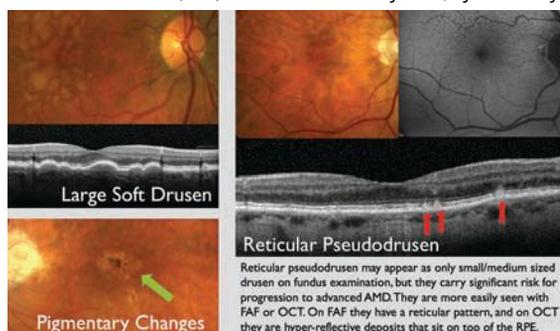


Figure 1. High-risk fundus findings for AMD progression.
Image: Jessica Haynes, OD

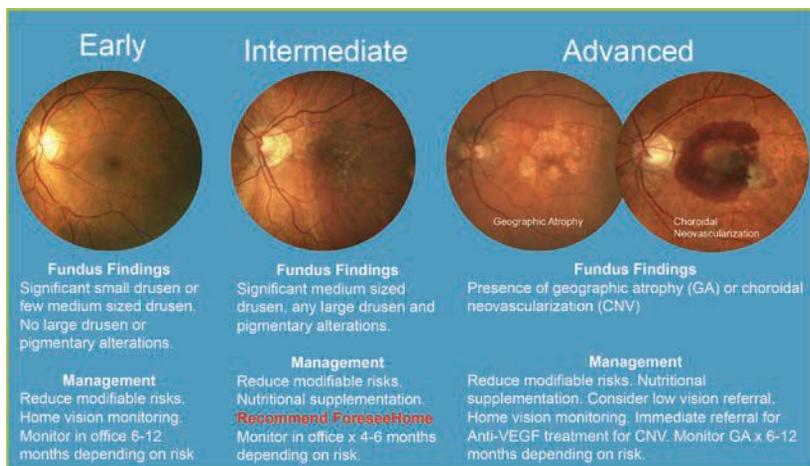


Figure 2. AMD stages and management. Image: Jessica Haynes, OD

need to “bucket” these patients, as the stage of the disease will change your management plan.

Dr. Haynes: Appropriate staging of AMD is critical in managing patients with an evidence-based approach. Identification of early AMD is important for reducing risk of progression by modifying behaviors such as smoking, diet, and general health. Nutritional supplementation should be considered in patients with intermediate AMD, and this is also the stage at which you can discuss the ForeseeHome device with patients. In addition, certain findings such as large drusen, pigmentary alterations, and reticular pseudodrusen carry increased risk for progression to advanced AMD. Examples of these findings are shown in Figure 1.

Patients with these findings should be educated about the importance of home monitoring and the need for more frequent follow-up. Per the AREDS I report number 18, patients with large drusen and pigmentary changes in both eyes have a significant risk of converting to advanced AMD in the next five years.⁹ These individuals should be educated about their increased risk of conversion and be monitored more carefully.

Patients with just a few small drusen <63µm can be considered to have age-related macular

changes, but not AMD. Patients with significant small drusen or any medium-size drusen ≥63µm but <125µm have early AMD. Those with significant medium-size drusen, any large drusen ≥125µm, and pigmentary changes should be graded as intermediate AMD. Presence of GA or CNV indicates advanced AMD. Essentially, if the patient has only small, hard-to-detect drusen on fundus evaluation, they are exhibiting early AMD. If they have intermediate AMD, this is the simplified management strategy that I follow.

Dr. Gerson: The most important thing is to diagnose AMD when it is present. A recent study showed that up to 25% of patients with clinically evident AMD are not caught on clinical exams.¹⁰ This is important, since if the disease is not found, it can’t be treated or monitored appropriately. Then, knowing what stage of AMD a person has helps to determine the follow-up schedule. The more advanced the AMD is, the more likely it is to progress to wet AMD, as demonstrated by numerous studies. So it is

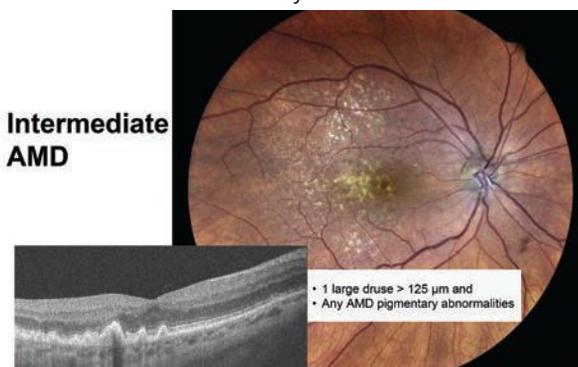


Figure 3. Criteria used to identify intermediate AMD. Image: Damon Dierker, OD, FAAO

important to monitor more closely those at highest risk because, if they do convert to wet AMD, the sooner they are caught, the more likely they are to have a better outcome.

Dr. Dunbar: We learned from the AREDS findings that the critical time to recommend nutritional supplements to patients is when they have intermediate-level AMD. The studies showed that we could reduce the risk of progressing to advanced AMD by 25%. Yet, they showed no benefit for patients with no AMD or with early AMD. So, even in early AMD, there was no benefit to putting a patient on a nutritional supplement because the risk for development of CNV was so low (1.3% over five years). Therefore, it is critical to be able to recognize when a patient has reached that intermediate threshold. What’s more, we know that intermediate-level AMD patients have a significant risk for progressing to wet AMD over a five-year period,⁹ as all of the others have said. So there may be good reason to see these patients more than just once a year. I use the following current classification for categorizing my AMD patients,¹¹ which is as follows:

- **No AMD: None or few druselets (small drusen ≤63µm), no AMD pigmentary abnormalities**
- **Early AMD: Medium drusen >63µm and ≤125µm, no AMD pigmentary abnormalities**
- **Intermediate AMD: 1 large druse >125µm and any AMD pigmentary abnormalities**

How big is 125µm? It’s about the diameter of one of the central retinal veins. Therefore, if I see a druse that is the size of one of the central retinal veins, that constitutes intermediate AMD, and I know the patient has a higher risk of progression. Also, the presence of RPE pigmentary mottling categorically puts the patient at intermediate-level AMD.

TOOLS TO MONITOR AMD PROGRESSION

What in-office equipment, devices, and tests are essential for initially diagnosing AMD and monitoring AMD progression?

Dr. Dierker: In my office, I use dark adaptation testing (AdaptDx,

Maculogix) to identify patients with subclinical disease and early AMD. I will monitor for disease progression in these patients using both dark adaptation and OCT. For patients with intermediate AMD, OCT is critical. I also use OCT angiography (OCTA) to help identify early CNV, even before we see signs of exudation.

Dr. Haynes: AMD can be detected with a thorough dilated eye examination alone; however, many tools can aid in diagnosing and monitoring of AMD, as well as detecting risk factors for conversion. OCT is truly the workhorse of managing posterior segment disease. If I could only have one imaging device for management of AMD, I would choose OCT. It can detect small-to-large-size drusen, early signs of CNV not visible on fundus examination, GA, and reticular pseudodrusen, which carry increased risk of conversion to advanced AMD.

Fundus autofluorescence (FAF) is also very useful in the management of many outer retinal conditions. It can be thought of as a lipofuscin map indicating the health of the RPE. Lipofuscin, an autofluorescent molecule, is housed in retinal pigment epithelium (RPE) cells. Sick RPE cells cannot properly metabolize lipofuscin, leading to increased concentration in the cells and hyper-autofluorescence. And RPE cells that have atrophied, as in regions of GA, lead to hypo-autofluorescence. So more advanced disease leads to greater alterations in the autofluorescent signal. FAF can also aid in the detection of reticular pseudodrusen that are difficult to see on fundus evaluation alone.

OCTA has also become a nice tool to have for detection of CNV. If findings are not conclusive based on the OCT image, my next step in evaluating a patient for CNV is obtaining an OCTA. If the findings are still not clear, I will consider a fluorescein angiogram or indocyanine green angiogram, but I believe OCT has significantly replaced the need for angiography in the detection of CNV.

Dr. Gerson: Even with the use of technology, the clinical exam is still an important part of diagnosing patients. Dark adaptation testing is critical for catching dry AMD at its earliest state—sub-clinical. In my mind, dark adaptation has parallels to Foresee-

Home; both are ways to help detect different stages of AMD as early as possible. By catching dry AMD with dark adaptation, we can initiate preventive strategies with supplements and lifestyle modifications, and, most importantly, gain critical information from more frequent in-office or home monitoring. OCT is also essential to detect subtle changes that may not be seen clinically. Though fundus photography may not be important for the OD's diagnosis, it could be helpful in illuminating disease for patients for educational purposes.

Dr. Dunbar: It is essential to check visual acuity and examine the retina through a dilated pupil. At the slit lamp, there are good options to stereoscopically view the macula with 90, 78, or even 60 diopter-condensing lenses. OCT is essential for following patients with intermediate-level or higher AMD. Without OCT, it becomes difficult to definitively rule out CNV in patients who have significant RPE mottling and coalesced drusen. OCTA would be optimal, but is not essential. Fundus photography is also helpful in AMD, but not essential.

Dr. Dunbar: What are benefits of home monitoring of AMD in addition to in-office screening? Why is it important to monitor patients, especially those at risk of wet AMD, from home as well as in the office in order to catch disease early?

Dr. Dierker: Intermediate AMD is unpredictable. It is quite unlikely that new CNV will happen to develop in the week prior to the patient's regularly scheduled office visit. Early diagnosis usually means better presenting visual acuity, which is the number one factor in whether these patients will have a good visual outcome with anti-VEGF therapy. Ideally, these patients should be managed with both in-office screenings and home monitoring.

Dr. Haynes: I tell my patients that periodic in-office monitoring for change is important, but obviously, I cannot check on them every day. I may see them in the office, and then two weeks later they have a conversion. This is why home monitoring is so important. I don't want to catch a patient's conversion at a sched-

uled in-office checkup when the vision is 20/200, and the patient has developed subfoveal fibrosis and long-term vision loss. I want to catch conversion at the earliest level of detection, which is most likely going to happen in between scheduled office visits.

Dr. Gerson: Routine office visits are set up on a relatively infrequent schedule. Even the most closely watched patients are seen at intervals of months. Yet, as CNV develops, changes occur daily. Because it is not feasible to see patients frequently enough to catch changes as they occur, home monitoring is the way to go. And, by home monitoring, I mean appropriate digital home monitoring—not just an Amsler grid, which is not nearly as sensitive or specific as FDA-cleared remote digital monitoring.

Dr. Dunbar: The data clearly show that less than 20% of patients with CNV will present with 20/40 or better vision.² Most patients will present with much worse vision, especially if it's their first eye, often with 20/80 to 20/200 VA. The data also show that if patients present with better vision at baseline, they have a better chance of maintaining better vision over time. Therefore, it becomes more important to catch/identify these patients as early as possible. Traditionally, that has not happened. The idea that we wait until the patient develops symptoms or that we rely on just happening to identify CNV as part of the annual or twice-annual exam is an antiquated way of following these patients. Thankfully, advances in technology have provided us with tools to help identify changes from disease much earlier. In particular, technology like the ForeseeHome device enables patient to take a more active role in monitoring their disease. It puts the patient in control.

AMD MONITORING STRATEGY

Dr. Dunbar: What home monitoring strategy do you use to evaluate patients at risk of wet AMD? What devices and software do you use toward that end?

Dr. Dierker: Amsler grid is neither sensitive or specific. ForeseeHome is the solution for at-risk patients.

It helps provide a “safety net” in between regularly scheduled visits in support of identifying disease progression as early as possible.

Dr. Haynes: Actually, I do believe that the Amsler grid still remains somewhat of a standard in home monitoring and can be a very useful tool. However, it has many flaws. One issue I see is that patients often misplace or are away from them, and use that as an excuse not to monitor their vision. I educate patients to monitor their monocular vision in some way once a day—whether it is looking at the blinds in their living room, a door frame, small text on their cell phones, grid paper, etc.

For patients who have intermediate-stage AMD, I am educating them on the ForeseeHome Program. The program takes the guesswork out of home monitoring for patients because of the built-in artificial intelligence (AI). In the past, I would have AMD patients tell me they had symptoms for months, but didn't report them because they weren't sure what they were. With the ForeseeHome

system, you don't have to rely on the patient to alert you—the Notal Vision Diagnostic Clinic confirms the automated AI-based test data analysis and will alert you of changes measured against a patient's baseline testing. This, along with evidence that adding ForeseeHome to standard care catches conversion sooner than standard care alone, makes it an easy decision to recommend it to my patients.

Dr. Gerson: I order ForeseeHome for my patients with intermediate dry AMD. The conversation in the office is quite easy, so it takes very little of my time, and the remote diagnostic clinic that we partner with covers additional disease and device education with the patient during

enrollment. I hear from my patients that home set-up is also quite easy. Another important factor is that when I ask my patients how much they end up paying for ForeseeHome, the majority of the time I hear that my patients don't end up paying anything for the technology. The device has its own software, and its ease of use is part of the attraction. The other is

its efficacy. I often tell patients that the trial to assess whether it worked was stopped because it worked so well, so it wasn't ethical to hold it back from anybody, and that is why I feel like I can't hold back from talking about it with anybody.

Dr. Dunbar: I recommend the ForeseeHome device to nearly all of my patients who have intermediate-level AMD and also recommend nutritional supplements, as well as discuss risk factors for progression such as diet and smoking. I try to see intermediate AMD patients at least every six months, and those with significant drusen and/or RPE mottling even more—up to three to four times per year.

When patients come in for follow-up visits, they will have OCT and OCTA imaging. For GA patients, they will also have FAF imaging in addition to OCT. Once they have converted to wet AMD, these individuals will be followed closely by a retinal specialist.

Dr. Dunbar: Can you discuss ways new technology (e.g., ForeseeHome) alerts you of potential problems? If you receive an alert, what in-office tests do you perform? Please explain.

Dr. Dierker: There are multiple ways to set this up, so you can really tailor it to what works for your practice. We choose to receive an encrypted email, both to myself and my assistant, when a ForeseeHome alert occurs. We then schedule the patient for an office visit, to include dilation and OCT, within a few days.

Dr. Haynes: When a patient has an alert on the ForeseeHome device, our office contacts the patient to let them know that an alert was sent. I schedule an office visit as soon as possible and obtain an OCT. If findings aren't clear based on the OCT, additional tests such as OCTA or IVFA in our retina practice may be considered.

Dr. Gerson: If one of my patients gets an alert, I receive an associated encrypted email. As soon as I am alerted, my office reaches out to the patient to set up an appointment within the next few days. Most patients come in within two days, and I explain that an alert means “they



ForeseeHome is a home-based monitoring program supporting earlier detection of wet AMD in intermediate dry AMD patients.
Image: Notal Vision

FORESEEHOME: A PARTNER IN EYE CARE

Characteristics of the ForeseeHome program include:

- Revenue neutral—there is no cost to the practitioner.
- Only available by physician order and intended to be used as an adjunct to regular eye exams.
- The device is loaned to a patient and they are charged a monthly monitoring fee, which is covered by Medicare.
 - The program includes a full-service patient financial services department that works with all insurance plans to determine and secure the best possible coverage.
- Does not reduce the number of office visits, but may increase them in the case of alerts, prompting an exam.
- The Notal Vision Diagnostic Clinic, medical service provider of ForeseeHome, provides comprehensive AMD and device education once a patient has been referred, helping alleviate additional chair time.
- ForeseeHome is intended for use in the detection and characterization of central and paracentral metamorphopsia in patients with age-related macular degeneration, as well as an aid in monitoring progression of disease factors causing metamorphopsia including but not limited to choroidal neovascularization (CNV). It is intended to be used at home for patients with stable fixation.
- Patients must have one of the following:
 - OD (right eye): H35.3112 (dry intermediate, right eye); BCVA 20/60 or better
 - OS (left eye): H35.3122; (dry intermediate, left eye); BCVA 20/60 or better
 - H35.3132; (dry intermediate, bilateral); BCVA 20/60 or better
- The program serves as an additional patient safety net and solidifies long-term relationships with patients.



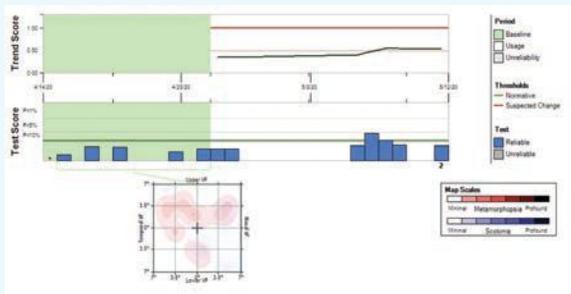
ForeseeHome Testing Data for a More Accurate Patient Picture

Here are examples of ForeseeHome testing data and how it can help practitioners proactively monitor at-risk patients.

Case 1: 83-Year Old Female With Intermediate AMD.

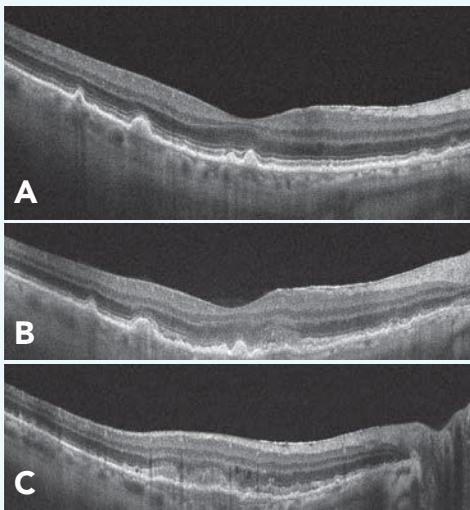
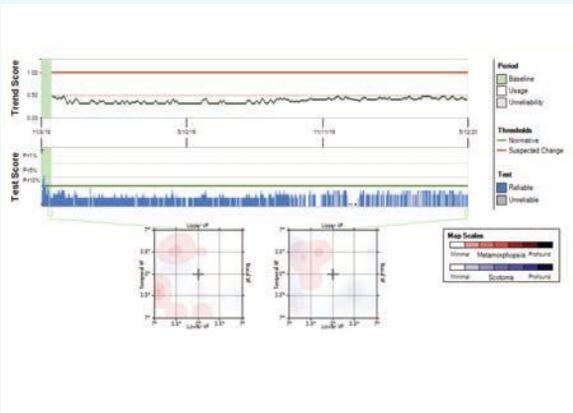
This patient, who presented for a six-month AMD checkup, is at risk of conversion. Historically, the patient had been monitoring her vision with an Amsler grid, but was excited about a new possibility

for at-home monitoring. She has been trying the ForeseeHome system for about one month, with reliable testing, but her average testing has only been about three times per week thus far. While the Notal Vision Diagnostic Clinic will ensure the patient is testing compliantly, the one-month mark is a great time to check in with patients to go over their progress, discuss positive results and reliable testing/baseline, and encourage more frequent testing. *Image: Jessica Haynes, OD*



Case 2: 74-Year Old Male With Intermediate AMD.

Findings of large drusen and pigmentary changes OU put this patient at increased risk of progression. The patient has been testing for about a year-and-a-half with reliable test results and no alerts reported. He tests frequently—an average of 6.5 tests per week, and is seen for in-office visits every six months. *Image: Jessica Haynes, OD*



78-Year-Old Female With Intermediate AMD

Patient's visual acuity at baseline was 20/20. OCT baseline central cut (Image A) shows drusen, but no evidence of exudation. ForeseeHome was prescribed. In March 2020, a ForeseeHome alert prompted an urgent in-office visit. The examination revealed that visual acuity was reduced, at 20/30. OCT central and superior cuts were obtained (Images B and C), and superior showed subtle signs of exudation. Anti-VEGF therapy was initiated to help stabilize the patient's condition. *Images: Damon Dierker, OD, FAAO*

have had a meaningful change that could indicate progression to AMD that needs treatment to prevent vision loss."

Dr. Dunbar: For my patients who have received an alert, I will have our schedulers reach out and get them in

to see me as soon as possible. I prefer the patient sees me first instead of a retina specialist, although I am fine with the patient going directly to the retinal specialist. Once again, technology like the ForeseeHome device puts the patient in control, and that can be very empowering for the

patient and the doctor.

MANAGEMENT OPPORTUNITY

Dr. Dunbar: Do you consider the additional "non-CNV alert" visits generated by ForeseeHome data a burden or an opportunity in patient management?

Dr. Dierker: My goal in managing AMD patients is to reduce their risk of having bad outcomes. Early detection, risk reduction strategies, and appropriate monitoring are critical. An alert is always a positive for the patient. If they've converted to wet and we've caught it early, they are less likely to have devastating vision loss if managed appropriately. If an alert turns out to be a false-positive, we are able to reassure the patient that some disease progression has occurred, but fortunately there is no sign of fluid. So an alert is never a burden in our practice.

Dr. Haynes: Alert visits are definitely an opportunity in patient management. Of course, the biggest reason is that an alert may have caught an early conversion to wet AMD, which is a critical step in maintaining good visual acuity. Even in the event of a false-positive alert, there is still the opportunity for patient education and building of the doctor-patient relationship. False-positive alerts may also come from regression of large drusen or large pigment epithelial detachments. As patients are going through these types of changes, they are at higher risk of conversion to advanced stages of AMD and should be followed more carefully. So even if the alert does not lead to a diagnosis of wet AMD, it may still be useful in detecting a risk for progression.

Dr. Gerson: Alerts provide an important opportunity to catch change before it has a negative effect on vision. They present an opportunity to further the educational process for patients. Even when I have had an occasional false-positive, patients were appreciative of the care and close monitoring. I often hear, "Better to be safe than sorry."

Dr. Dunbar: I do not consider the alert messages a burden. It's a way for both the doctor and the patient to stay connected. When the patient

is scheduled to come in because of an alert, it gives the doctor another opportunity to look at the AMD and compare the findings to baseline testing. Remember, the goal is to identify disease progression early, while also recognizing that false-positives may happen since no test is 100% perfect.

When these patients come in, they will have repeat OCT imaging, and we will sit down to discuss and educate about the disease state, as well as talk about how they feel the technology is working and how they are adapting. We also have another opportunity to talk about nutritional supplements and lifestyle modification.

AMD REFERRAL NETWORK

Dr. Dunbar: Once you have identified a patient in need of a referral to a retinal specialist, what steps do you take? Do you have resources to connect you with a qualified specialist?

Dr. Dierker: Retina specialists want good outcomes just like we do. They are always pleased when I send a patient with 20/20 or 20/25 wet AMD because the patient will need fewer injections and almost always do really well. When referring, letting the retina specialist's office know that you have a "new, symptomatic wet AMD patient with good acuity" usually will result in a visit within a day or two.

Dr. Haynes: I work primarily in a retina specialty clinic where I see patients with posterior segment disease such as those who have converted to wet AMD. If a doctor is trying to schedule a wet AMD patient, I have the patient scheduled as early as possible. While conversion to wet AMD is not an emergency, it is a more urgent referral than certain other conditions like diabetic macular edema, and I would definitely like to get the patient scheduled as soon as possible. My patients will often begin treatment the same day as their initial office visit.

Dr. Gerson: If a patient needs to see a retina specialist for treatment of wet AMD, we call the retina specialist's office directly from our office while the patient is in to set up an appointment. This guarantees that at least the appointment has been made. And if we make the effort and take the time to do it while the patient is in the office,

it reinforces the importance of timely referral and treatment.

Dr. Dunbar: This is not an issue where I practice, as I have many excellent retinal specialists with whom I can schedule these patients. We just figure out optimal days for the patient to be seen, which may be significant if patients are relying on family members to escort them to the visit.

Dr. Dunbar: How do you see OD-MD referral relationships evolving, given the availability of built-in diagnostic monitoring services offered through new technology offerings?

Dr. Dierker: Most retina specialists in my community are more than happy to have optometrists monitor early and intermediate AMD patients—if they have the right tools. OCT is standard of care, and you really can't manage these patients without it. But OCT, at least right now, can only be done in the office. Having the ability to prescribe home monitoring for these patients will potentially strengthen the co-management relationship.

Dr. Haynes: With new technology, I think it becomes increasingly important to have a good relationship with referring doctors where they feel comfortable sharing imaging and clinical information with me. For example: Not all ODs practice with an OCT. They may still use a home-monitoring system like the ForeseeHome and get an alert for which they refer the patient to a retina specialist to perform an OCT. If the OCT does not

suggest presence of CNV, knowing that an alert was given would be important in deciding if further testing or a closer follow-up is needed.

Dr. Gerson: I think that relationships have evolved to be much more friendly and patient-focused. There is the realization that, ultimately, what is best for the patient is what is most important. With built-in diagnostic monitoring services through technology, we know that patients will be referred for treatment at the most appropriate time. Potentially too-early referrals won't be made, while at the same time referrals will likely be made before there is dramatic vision loss.

Dr. Dunbar: Advances in therapeutic agents for treatment of AMD and diabetic retinopathy have created a significant treatment burden on most retinal practices. As a result, many retinal specialists are relying on the primary care optometrist to follow patients until they convert or between treat-and-extend strategies. The hope is that when patients are referred to a retina specialist it's because they are in need of a therapeutic intervention. Fortunately, with more optometrists having OCT, we are capable and ready to meet this responsibility. The ForeseeHome remote monitoring program is another important tool making it possible to closely follow patients and help catch conversion at the earliest possible time point.

PRACTICE BENEFITS

Dr. Dunbar: How has home AMD monitoring changed your practice?

Risk Reduction – Intermediate AMD

- Smoking cessation
- Diet
- Nutritional supplements
- HTN/cholesterol control
- Exercise/weight control
- UV/blue light protection

Add ForeseeHome monitoring

Figure 4. Here are strategies to help lower the risk of conversion to advanced AMD. Images: Damon Dierker, OD, FAAO

Furthering the AMD Patient Relationship

Dr. Dunbar: How can proactive AMD monitoring keep patients in the practice longer over their eye health lifecycle?

Dr. Dierker: As an early adopter of ForeseeHome, I can tell you patients are impressed that we offer this service. Many have a friend or relative who has suffered severe vision loss due to AMD, and they are scared of having a similar outcome. My intermediate AMD patients who are using ForeseeHome are some of my most loyal patients and a strong source of referrals. I rarely send these patients to retina specialists unless I've confirmed the need for anti-VEGF therapy. It really is a win-win situation for the patient and the practice.

Dr. Haynes: The diagnosis of AMD is scary and emotionally difficult for patients. They have this potentially blinding disease with limited treatment options for its dry form. However, the greatest threat to vision remains conversion to wet AMD, which can be treated. Patients are typically very excited to hear there is a new way to monitor their vision, giving them a better chance of maintaining good eyesight if they do convert to wet AMD. Patients who have been diagnosed with AMD for the last several years may have grown tired of hearing that there is nothing new in the management of AMD. When you tell them about a new home monitoring device, they see their doctor as up-to-date on the latest technology. These patients are more likely to remain in your practice and to tell their friends about their experience in your clinic.

Dr. Gerson: My perception is that proactive monitoring keeps patients in the practice longer. It helps create a connection. Every day that a patient tests, that test is an extension of the prescriber's practice. The other thing that I have heard from some of my patients is, "Why didn't my previous doctor tell me about this?" Although I can't answer that question, it makes a very favorable impression on the care we provide and our credibility, and the patient's excitement to be more involved in their own care.

Dr. Dunbar: In today's ever-advancing technology-driven world, it makes sense that we have incredible diagnostic tools such as OCT and OCTA to be able to better manage and follow patients with AMD. Gone are the days when we had to refer a patient with retinal disease because we weren't sure. Now, we know the answers to these questions, and they can be made at a primary eye care level. These tools have put eye care providers on a close-to-level playing field with the retinal specialist. So, instead of referring early or intermediate-level AMD patients to a retinal specialist, these patients can be followed on a primary care level as often as necessary, until they convert. An intermediate-level AMD patient may need to be seen a minimum of twice a year, and every visit may require photos and/or OCT imaging. This is a great way to keep patients in your practice. The reality is most AMD patients should not need to see a retinal specialist because the vast majority of AMD patients (90%) will stay dry, and only 10% will progress to CNV.

By the same token, being a prescriber of the ForeseeHome device becomes an extension of your practice and an important way that your patient stays connected to you as well as your practice.

Dr. Dierker: All of my patients with intermediate AMD are offered home monitoring. We have them watch a short video that Notal Vision produced, demonstrating the ForeseeHome technology and the benefits of home monitoring. We refer patients to the Notal Vision Diagnostic Clinic by faxing a referral form that takes just a minute or two to complete. Intermediate patients are still seen every six months for follow-up visits in the office. This, combined with recommendations regarding lifestyle changes and nutritional supplements, allows me to confidently tell my patients that I am doing everything possible to protect their vision.

Dr. Haynes: Integrating home monitoring into the day-to-day clinic flow has been very easy. It has become part of the routine discussion with intermediate AMD patients that includes vitamin supplementation, smoking cessation, sun protection, and a healthy lifestyle. Now I include that I am going to prescribe a machine to monitor vision at home.

Dr. Gerson: It has helped me to be more confident in following patients who are at higher risk for conversion to wet AMD. It also gives my practice a technology advantage, which helps it stand out from others that do not employ new monitoring capabilities. And it increases "buy-in" from patients, who are more likely to be compliant with their supplements, since they understand the importance of treatment and monitoring as part of comprehensive eye care.

Dr. Dunbar: Home monitoring of AMD has empowered me as an optometrist to provide the best possible opportunity and solution to my patients to self-monitor their disease. The fact that the ForeseeHome device was validated in a powerful clinical trial provides a scientific basis for recommending the device to my patients. It gives me the confidence that I am doing everything at my disposal to monitor and detect change as early as possible.

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