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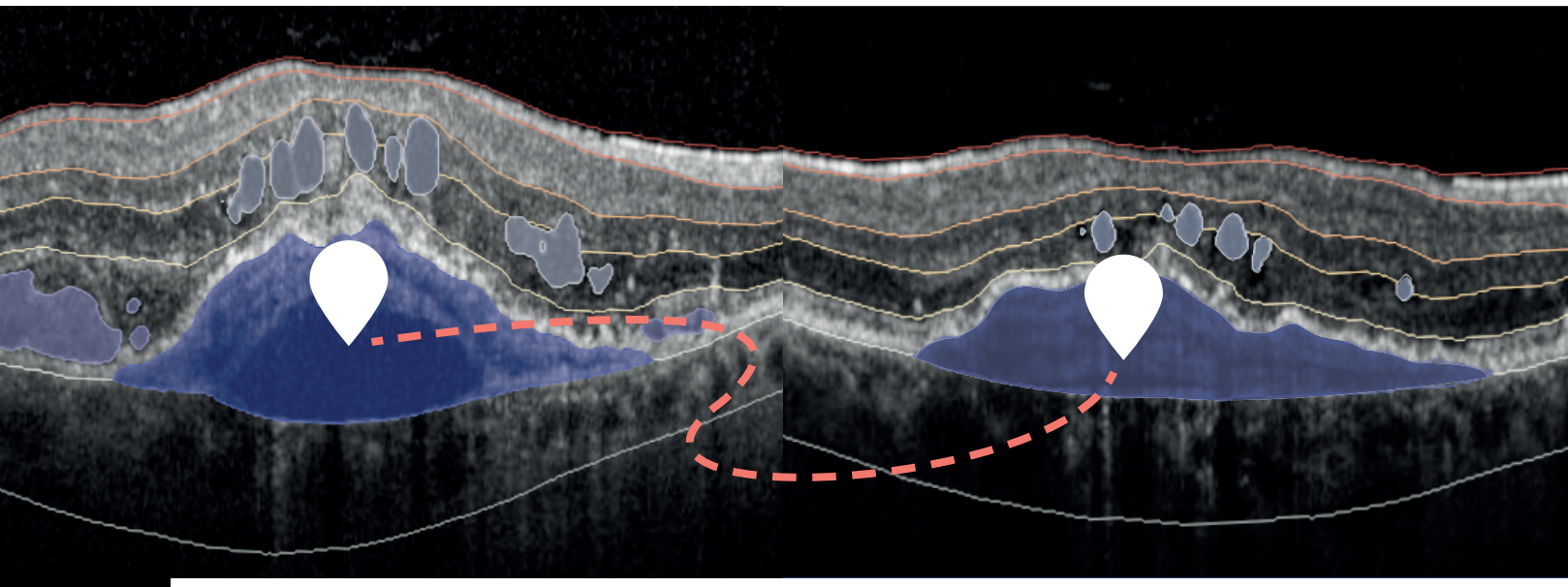

HELP YOUR PATIENTS UNDERSTAND
THEIR TREATMENT BETTER WITH

MEASURES YOU CAN MONITOR.

RetinAI Disease Evaluation Apps
for AMD, DR, DME, CME.

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EXPERT-LEVEL, ACTIONABLE INSIGHTS BASED ON AI

RetinAI has a set of disease evaluation apps powered by AI to bring expert-level assessment of retinal diseases to everyday patient management.

The tools generate actionable insights to understand disease activity, by analyzing volume and thickness of fluid and layers on OCT volumes, as well as quantifying probabilities of other retinal biomarkers found on OCTs.

CHALLENGES IN DISEASE EVALUATION AND OUTCOMES

Despite advances in retinal imaging technology, patient disease activity can be missed in vision-threatening conditions. In a real-world study on the clinical management of wet age-related macular degeneration (AMD), disease activity was missed in up to 16.7% of OCT volumes from patients when compared to the reading center evaluating the same images[1]. **This oversight in everyday practice, has the potential of undertreating patients in up to 9.7% of visits.**

Further to the potential for negative vision outcomes in patients, in a real-world cohort for wet AMD patients, close to 30% of patients had a delay in treatment of more than 4 weeks[2]. One factor for this delay is a lack of awareness and urgency on the part of the patient to understand and track their disease more closely. As a result, **these patients have the potential to lose almost one line of vision 12 to 18 months later.**

RETINAI DISEASE APPS: BENEFITS FOR DISEASE MANAGEMENT

RetinAI's disease evaluation apps are accessed via Heidelberg AppWay available in the HEYEX 2 platform, and provide expert-level analysis of a patient's OCT volumes. Results can be generated during the patient's visit to complement evaluation and management of retinal diseases.

The results help to:

- **understand disease progression and the status of biomarkers on OCT volumes**
- **provide valuable patient education, empowering individuals to understand their disease better.**

The disease evaluation apps via AppWay, are meant to provide insights during a patient's visit. If you are interested in **batch data analysis using AI,** please contact **info@retinai.com** or visit **www.retinai.com** to learn about **RetinAI's solutions for at-scale analysis.**

[1] Liakopoulos S, Spital G, Brinkman CK, et al. ORCA study: real-world versus reading centre assessment of disease activity of neovascular age-related macular degeneration (nAMD); British Journal of Ophthalmology; 2020;104:1573-1578

[2] A model to quantify the influence of treatment patterns and optimize outcomes in nAMD; Ziemssen, F, Agostini, H, Feltgen, N et al. Scientific Reports (2022) 12:2789

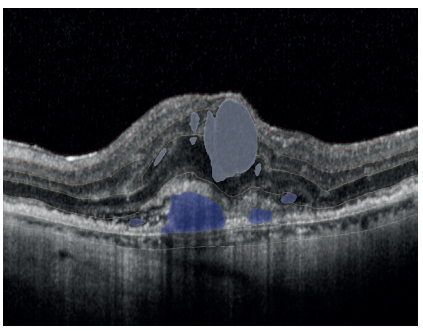
RETINAI'S AI MODELS

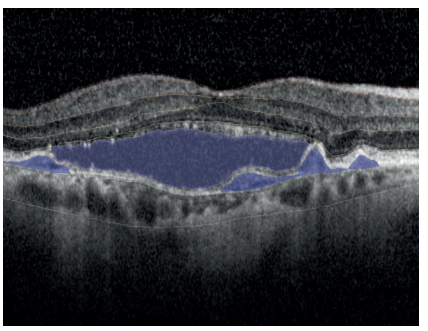
DISEASE EVALUATION APPS POWERED BY CERTIFIED AI MODELS

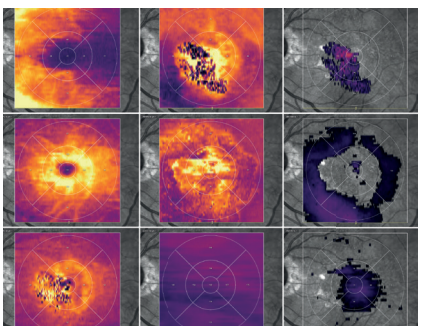
RetinAI's disease evaluation apps are made up of a set of CE-Marked AI models that are approved for clinical use. These models were developed from real world evidence across multiple retinal diseases comparing the models' performance to that of expert graders, resulting in similar performance achieved[3]. These models were designed to provide valuable insight for patient management.

FLUID SEGMENTATION MODEL

Identifies and measures the volume of pathological fluid such as intraretinal fluid (IRF), subretinal fluid (SRF) and pigment epithelium detachment (PED).



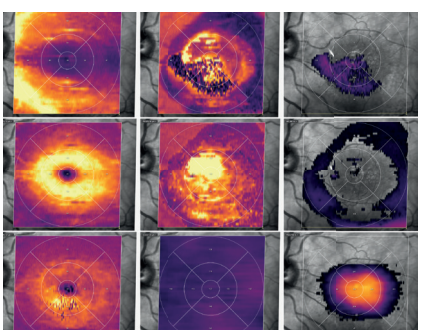




LAYER SEGMENTATION MODEL

MEASURES TOTAL RETINAL THICKNESS AND LAYER THICKNESS OF THE FOLLOWING:

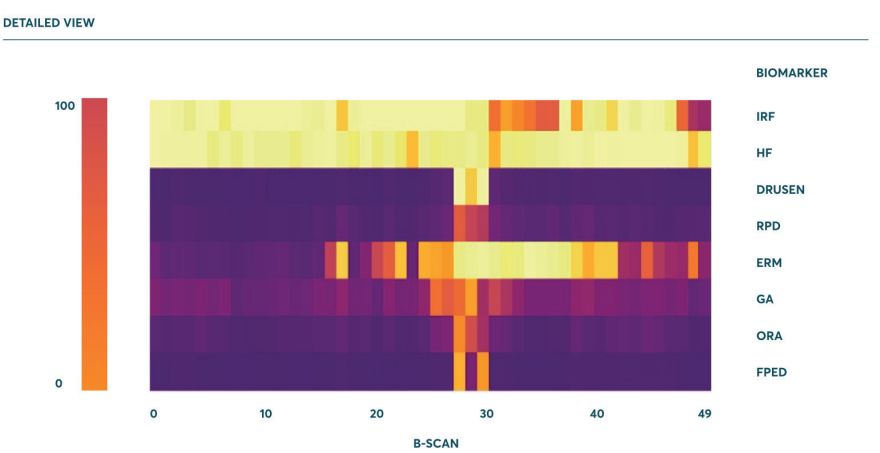
Retinal Nerve Fiber Layer (RNFL); Ganglion Cell Layer (GCL) + Inner Plexiform Layer (IPL); Inner Nuclear Layer (INL) + Outer Plexiform Layer (OPL); Outer Nuclear Layer (ONL); Photoreceptor (PR) + Retinal Pigment Epithelium (RPE); and Choriocapillaris (CC) + Choroidal Stroma (CS)



BIOMARKER MODEL

PROVIDES PROBABILITY OF RETINAL BIOMARKERS AT A B-SCAN LEVEL OF THE OCT. THE BIOMARKERS IDENTIFIED ARE:

Fluids (SRF, IRF and Fibrous PED), Hyper reflective Foci (HF), Drusen, Reticular Pseudodrusen (RPD), Epiretinal Membrane (EPM), Geographic Atrophy (GA) and Outer Retinal Atrophy (ORA).

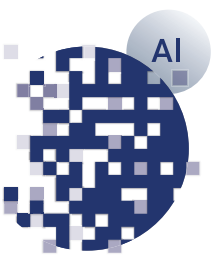


[3] Apostolopoulos, S., Salas, J., Ordóñez, J.L.P. et al. Automatically Enhanced OCT Scans of the Retina: A proof of concept study. Sci Rep 10, 7819 (2020).; Kurmann, T., Yu, S., Márquez-Neila, P. et al. Expert-level Automated Biomarker Identification in Optical Coherence Tomography Scans. Sci Rep 9, 13605 (2019).

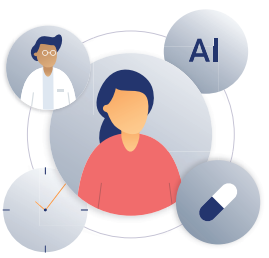
DISEASE EVALUATION APPS ON HEIDELBERG APPWAY

RetinAI provides disease evaluation apps for some of the most common vision-threatening diseases in ophthalmology:

- **AGE RELATED MACULAR DEGENERATION** (AMD)
- **DIABETIC RETINOPATHY** (DR)
- **DIABETIC MACULAR EDEMA** (DME)
- **CYSTOID MACULAR EDEMA** (CME)
- **GEOGRAPHIC ATROPHY** (GA)



UNDERSTAND DISEASE PROGRESSION AND BIOMARKERS ON OCT



PROVIDE VALUABLE EDUCATION TO PATIENTS

	DRY AMD APP	NAMD, DR/DME, CME APP
FLUID SEGMENTATION		✓
LAYER SEGMENTATION	✓	✓
MACULAR BIOMARKERS	✓	✓

GETTING STARTED IS AS SIMPLE AS 1-2-3

1. **View the apps available in AppWay via your HEYEX 2 image management platform.** Locate the apps from RetinAI.

2. **Click on the link 'Info' on the right side of the specific RetinAI app. You will be redirected to RetinAI's website where you can:** read more about the apps, choose your licensing option (based on usage levels) and register.

3. **Once you have registered, you will receive the credentials to be entered in HEYEX 2 via email.** After adding the credentials in HEYEX 2, you will be able to transfer OCT volumes directly from HEYEX 2 to the app for processing and then generate a disease evaluation report.

For more information, please visit **www.retinai.com** or for customer support please contact us at **support@retinai.com.**

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