

# SUMMARY OF TERMINOLOGY IN GEOGRAPHIC ATROPHY

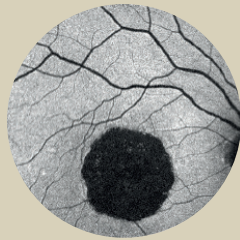
## GEOGRAPHIC ATROPHY

Geographic atrophy (GA) is an advanced form of age-related macular degeneration (AMD) characterised by progressive and irreversible loss of photoreceptors, retinal pigment epithelium and underlying choriocapillaris.<sup>1</sup>

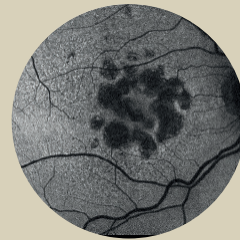
### Healthy eye vs eye with GA



**Healthy**



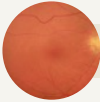
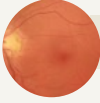
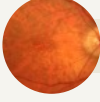
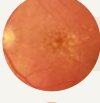
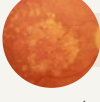
**Unifocal lesion**



**Multifocal lesion**

(Fundus autofluorescence images courtesy of Heidelberg Engineering Ltd and intended for use in UK, Ireland and Nordics)

### The Beckman clinical classification scheme for AMD<sup>2</sup>

CLASSIFICATION	CLINICAL MANIFESTATION
 <b>No AMD</b>	No drusen and no pigmentary abnormalities
 <b>Normal ageing changes</b>	Drusen $\leq 63\mu\text{m}$ and no pigmentary abnormalities
 <b>Early AMD</b>	Drusen $>63\mu\text{m}$ and $\leq 125\mu\text{m}$ no pigmentary abnormalities
 <b>Intermediate AMD</b>	Drusen $>125\mu\text{m}$ and/or pigmentary abnormalities
 <b>Late AMD</b>	GA and/or neovascular AMD

(Images courtesy of Ferris FL 3rd, et al. Ophthalmology. 2013;120(4):844–851.)

### Nonsubfoveal lesions<sup>3</sup>



Nonsubfoveal

Refers to lesions wholly outside of the fovea. Also referred to as extrafoveal

### Subfoveal lesions<sup>3</sup>



Subfoveal

Refers to lesions that involve part or all the fovea, can also be termed foveal involvement, foveal GA

## USAGE OF MULTIMODAL IMAGING

GA can be distinguished from other forms of AMD via imaging. It is characterised as cell layer loss with sharply defined borders.<sup>1,4</sup>

*The following diagnostic imaging techniques can be used to identify GA:*

- Optical coherence tomography (OCT) – structural B scan<sup>1,5</sup>
- Optical coherence tomography (OCT) – en face<sup>4</sup>
- Fundus autofluorescence (FAF)<sup>1,5</sup>
- Colour fundus photography (CFP)<sup>1,4</sup>
- Near-infrared reflectance (NIR)<sup>4</sup>

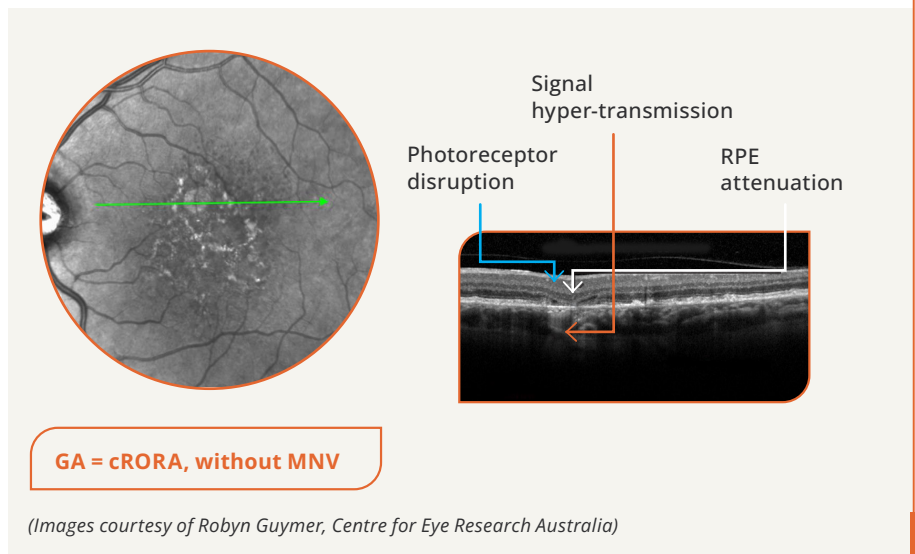
Classification system based on OCT was proposed for atrophy secondary to AMD<sup>4</sup>

### cRORA:<sup>4</sup>

Complete retinal pigment epithelium and outer retinal atrophy was defined by the following criteria:

- 01** Region of hyper-transmission of at least 250µm in diameter
- 02** Zone of attenuation or disruption of the RPE of at least 250µm in diameter
- 03** Evidence of overlying photoreceptor degeneration

All occurring in the absence of signs of an RPE tear

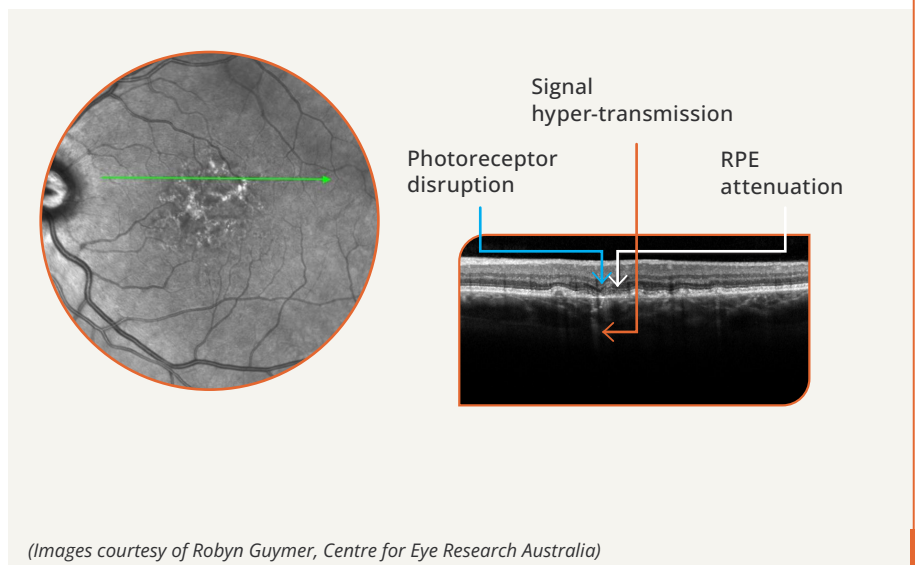


MNV: macular neovascularisation

### iRORA:<sup>4,6</sup>

Incomplete retinal pigment epithelium and outer retinal atrophy:

- 01** A region of signal hyper-transmission into the choroid of <250µm
- 02** A corresponding zone of attenuation or disruption of the RPE, with or without persistence of basal laminar deposits
- 03** Evidence of overlying photoreceptor degeneration



RPE: retinal pigment epithelium.

#### References:

1. Fleckenstein M, et al. Ophthalmology. 2018;125(3):369-90.
  2. Ferris, F.L, et al. Ophthalmology 2013;120(4):844-51.
  3. Bakri, SJ, et al. J Manag Care Spec Pharm. 2023 May;29(5-a Suppl): 10.18553/jmcp.2023.29.5-a.s2.doi: 10.18553/jmcp.2023.29.5-a.s2
  4. Sadda SR, et al. Ophthalmology. 2018;125(4):537-548.
  5. Sadda SR, Retina. 2016;36(10):1806-1822.
  6. Guymer RH, et al. Ophthalmology, 2020; 127(3): 394-409.
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