Step 1. Compare and contrast against a healthy macula using applied knowledge of ocular anatomy, in the context of other clinical findings.

Images may vary between instruments, and will depend on the:
- Scan parameters – speed, density, orientation, location, depth
- Wavelength of the light source
- Axial and lateral resolution of the instrument
- Signal roll-off
- Other features such as averaging, enhanced depth imaging or eye tracking

B-scans may be viewed in white on black (featured), black on white or pseudocolour. Grayscale enhances the visualisation of subtle pathologies such as cystic spaces.

Step 2. Review each B-scan qualitatively, including the vitreous, retina, RPE, choroid and choroid sclera junction for:

**Anomalous hyper- or hypo-reflective lesions:**
- Fluid
- Blood
- Exudate
- Fibrosis
- Pigment
- Deposits
- Neovascularisation
- Cavities

**Focal or diffuse morphological changes:**
- Irregularities
- Abnormalities in thickness or shape
- Elevations or depressions
- Differences in visibility
- Attenuation or fragmentation of tissues
- Apposition or displacement of tissues

- **Intermediate AMD**
  - Drusen, pigmented changes
  - Altered visibility of Henle’s Fibre Layer

- **Central serous chorioretinopathy**
  - Serous PED and subretinal fluid
  - Pachy- (thick) choroid

- **Myopic foveoschisis**
  - Schisis cavities
  - Visibility of choroid sclera junction

- **Diabetic retinopathy**
  - Hard exudates and haemorrhages

- **Epiretinal membrane**
  - Fibrosis

- **Foveal hypoplasia**
  - Abnormally flat foveal pit
Step 3. Evaluate the macular thickness and/or other reports.

The normative classification may depend on the representativeness of the normative database, including variables such as age, ethnicity, refraction and number of subjects.

The quality or continuity of the thickness map may depend on the instrument’s automated algorithms for finding the fovea and segmentation. All results should be evaluated for inter-eye asymmetry.

**Other report options** include variations of:
- Macular thickness change analysis
- Advanced RPE analysis
- Ganglion cell analysis
- Asymmetry analysis
- Structure-function analyses

Step 4. Be wary of artefacts.

**Patient dependent (eye-related)**
- Blink
- Motion, lack of fixation
- Media opacities

**Acquisition dependent (operator-related)**
- Vignetting, small pupils
- Truncation

**Instrument dependent (OCT-related)**
- Posterior shadowing
- Cut-edge or mirror artefacts

**Software algorithm errors**
- Segmentation errors
- Misidentification of the fovea
<table>
<thead>
<tr>
<th>Landscapes of the Macula</th>
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<tbody>
<tr>
<td><strong>Adult-onset foveomacular vitelliform dystrophy</strong></td>
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<tr>
<td><img src="image1.png" alt="Image" /></td>
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<tr>
<td><strong>Cone dystrophy</strong></td>
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<td><img src="image6.png" alt="Image" /></td>
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<tr>
<td><strong>Macular branch vein occlusion</strong></td>
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<tr>
<td><strong>Retinitis pigmentosa</strong></td>
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