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## PHOTOBIO-MODULATION FOR DRY AMD

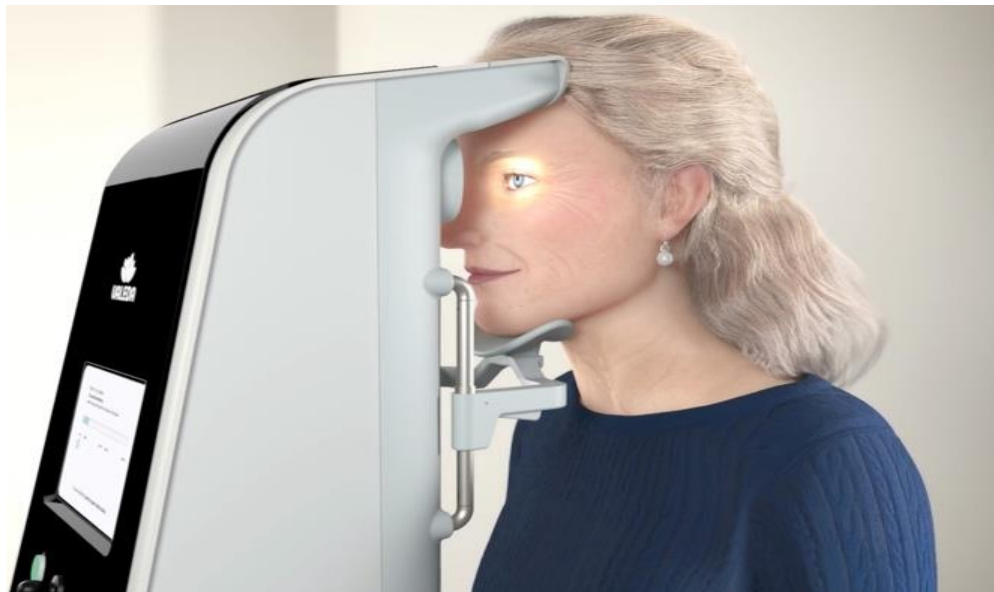
### Patient Information leaflet and Consent



IMPROVES  
VISUAL ACUITY

IMPROVES CONTRAST  
SENSITIVITY

REDUCES CENTRAL  
DRUSEN VOLUME

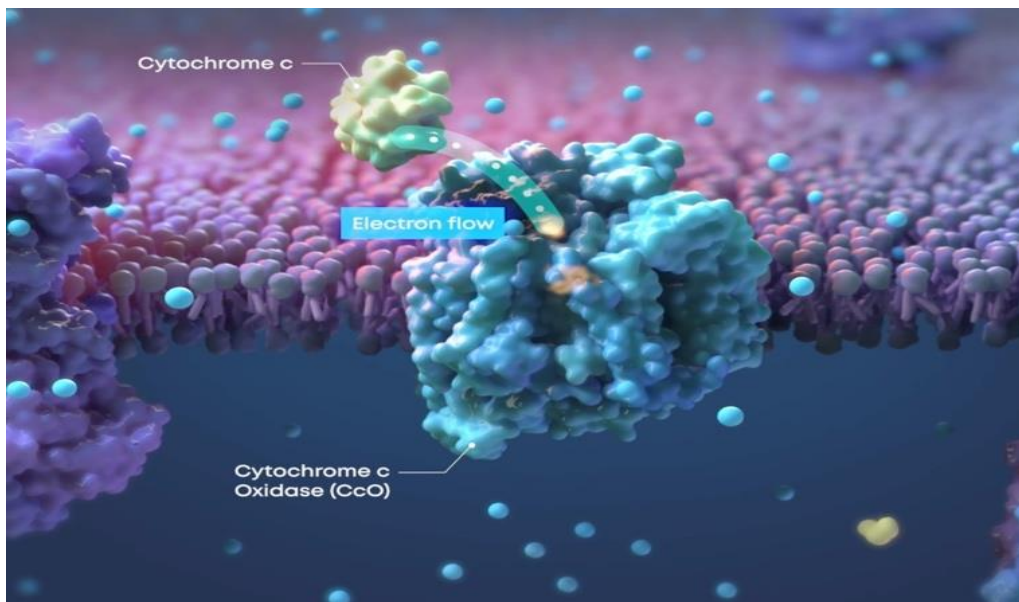


Photobiomodulation (PBM) is a form of light therapy showing promise in the control of dry Age Related Macular Degeneration (AMD). Recent trial data has suggested a beneficial effect in patients with certain dry age related macular changes. The main data coming from the LIGHTSITE III trial using the Valeda light delivery system.

Dry AMD has otherwise remained frustratingly resistant to treatment in spite of extensive research. Nutritional supplements have offered only marginal benefit, and anti-complement injections are yet to be approved for use in the UK.

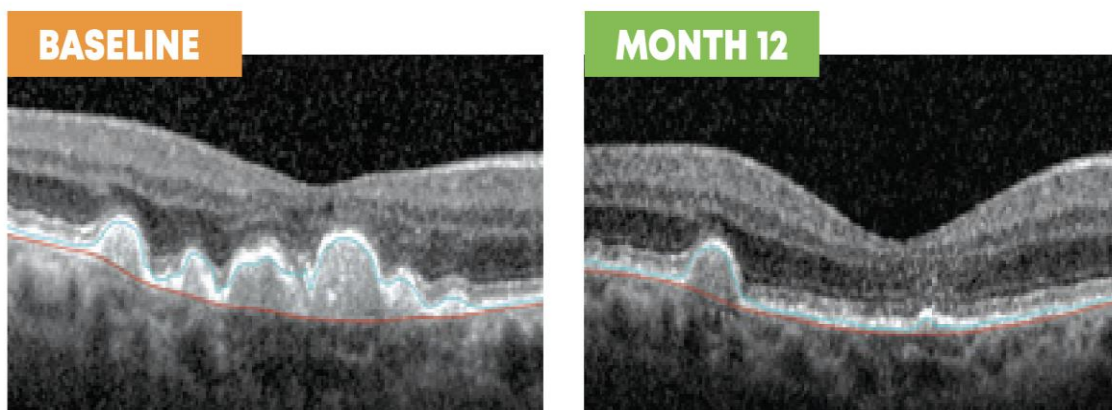
Light therapy, primarily red and infrared, has shown some benefit in numerous conditions throughout the body. The science of PBM is developing rapidly, with research showing potential short-term results in the earlier stages of dry AMD. This works best for those with drusen (yellowish blobs beneath the retina) rather than atrophy (loss of tissue).

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PBM IS THOUGHT TO WORK IN A NUMBER OF WAYS:

- Improving blood flow to the retina and its supporting layers
- Stimulating nitric oxide, a chemical important to the health of blood vessels
- Activating mitochondria, the tiny particles within cells that produce energy, via cytochrome c oxidase



**Decrease in macular drusen following Valeda Therapy**

Ideal patients are those showing signs of early dry AMD (the grades currently considered suitable for nutritional supplements), and a visual acuity of 6/36 or better.

A treatment course consists of nine sessions over a three-week period, each of which lasts just a few minutes. Three separate colours are used with no discomfort or potential side effects for the patient. Therapy can be offered to one or both eyes, depending on clinical findings and patient preference.

Valeda uses three specific wavelengths: 590, 660 and 850 nm. Each has a specific role in the cells they target.

They are:

- 590 nm inhibits vascular endothelial growth factor expression and removes cellular deposits.
- 660 nm promotes oxygen binding and stimulates adenosine triphosphate (ATP), which inhibits inflammation and cellular loss.
- 850 nm stimulates metabolic activity as well as ATP, inhibits inflammation cellular loss and drives electron transfer.

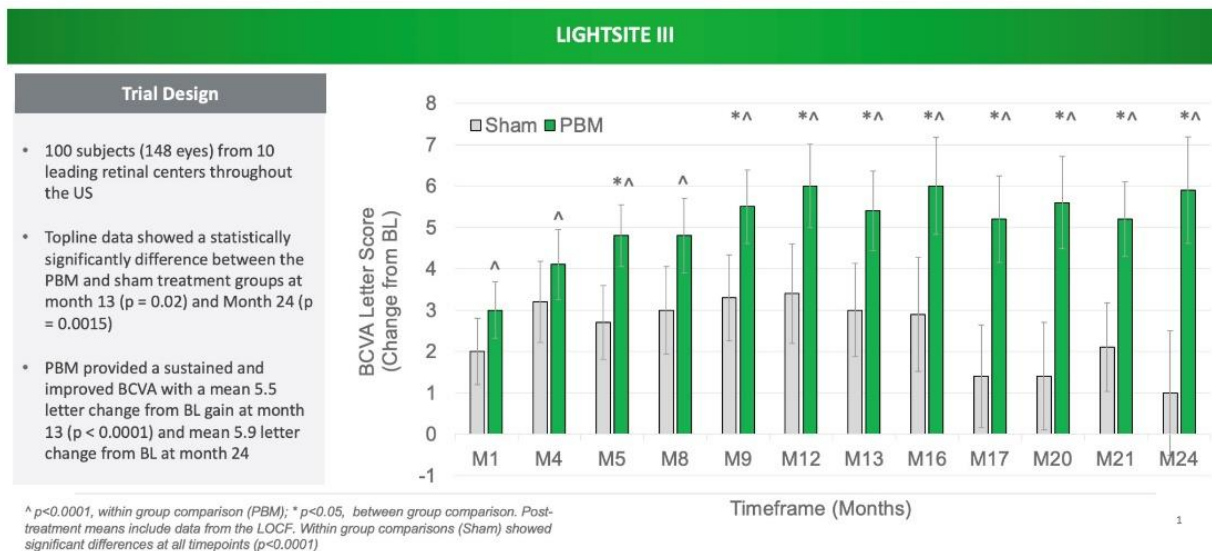
## FIRST APPROVED TREATMENT FOR DRY AGE-RELATED MACULAR DEGENERATION (AMD) USING PHOTOBIO-MODULATION

Initial studies have shown a significant effect with a benefit maintained over 2 years

Further clinical trials are in progress but, given the evidence to date, and the lack of any other effective treatment, this minimally invasive and very low-risk treatment appeals to some sufferers

### POTENTIAL BENEFITS OF PBM TREATMENT:

- Slow the degeneration of dry AMD
  - Stabilise or improve vision
- Reduce the risk of progression to wet AMD



**PATIENT CONSENT**

Before agreeing to undergo Photobiomodulation for dry AMD, you will need to sign this consent form indicating that you understand the risks, benefits and limitations of the procedure. We encourage you to ask any questions before signing the consent form. Please read this form carefully. If you have any further questions, please ask - we are here to help. You have the right to change your mind at any time, even after you have signed the form.

Patient details

The above explanation has been read by/to me. The nature of my eye condition has been explained to me and the proposed treatment has been described. The risks, benefits, alternatives, and limitations of the treatment have been discussed with me. All my questions have been answered.

**I hereby authorise Mr Tanner to carry out Photobiomodulation therapy  
LEFT or RIGHT eye**

Patient's Signature..... Date .....

I have confirmed with the patient that there are no further questions and wishes the procedure to go ahead.

Mr Vaughan Tanner ..... Date .....

If you experience eye pain or have any concerns:

Please contact Mr Tanner's team on 0800 644 0700 or 0800 644 0900.  
Out of hours Main Hospital Switchboards are :  
Princess Margaret Hospital, Windsor - 01753 743434  
Spire Dunedin Hospital, Reading - 01189 587676  
Circle Hospital, Reading - 0118 922 6888  
Eye Casualty at Royal Berkshire Hospital, Reading - 0118 322 7162/3