

## AMD: A to Z

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Description: As AMD becomes more prevalent, it is more important to be up to date with diagnosis and treatment of this disease. Trends in diagnostic technologies as well as advances in treatments will be discussed in the rapid fire course going from A to Z.

### Objectives:

1. Discuss trends in diagnosis of AMD.
2. Discuss latest trends in treatments for AMD: both wet and dry.
3. Discuss demographics of macular degeneration and its importance in every day practice.
4. Discuss the importance of and how to implement remote home monitoring of intermediate AMD.
5. Make obvious the role of OD's in the every day care of AMD patients
6. Demonstrate the importance of multimodal imaging including but not limited to OCT-A and fundus autofluorescence.

### Alphabetical listing of topics to be discussed.

Astaxanthin as a potential supplement

Benefits in visual fatigue/symptoms

Sources

AREDS2 and AREDS2 follow on results/data

AREDS2 5-year results

10 year follow-on results released 2021

Magnitude of study and implications for patient treatment

Bevacizumab: Anti-Vegf injection

CATT to compare vs approved Anti-VEGF

Cost and public health implications

Biosimilar

Ranibizumab first ophthalmic approved biosimilar

Other biosimilars and benefits

Economic impact

Carotenoids and their importance

L/Z benefits and Beta Carotene negatives

Benefits as to decrease odds of progression

Benefits as to improved vision metrics

Co-management

Importance of OD role in AMD care

Likely shortage of retina providers making it necessary for more OD involvement

Dark adaptation

Sensitivity and specificity in detecting AMD

Use in monitoring progression in AMD

Eylea/Eylea HD for wet AMD

Studies showing benefit

2mg vs 8mg as far as efficacy

- Decreased burden with higher concentration
- ForeSee home for monitoring of conversion to wet AMD
  - HOME study as part of AREDS2
  - Real world usage/statistics
- Fundus Autofluorescence
  - Ease of use and interpretation
  - Use as metric of risk or change over time
  - Particular importance in geographic atrophy
  - Case examples
- Geographic atrophy: Prevalence and treatment options
  - Approved treatments
    - 2 approved treatments via intravitreal injection
    - Direct to patient advertising on television creating awareness
- High risk dry AMD: Intermediate and odds of conversion
  - Definition of intermediate dry AMD
  - AREDS simplified scale
    - Updated AREDS simple scale
  - Can diet be beneficial? (Yes via multiple publications)
    - Chew et al discussing Mediterranean diet
- Home OCT
  - Recently FDA approved at home monitoring for Wet AMD
  - Going through insurance process and when will it be available?
- Inheritance of AMD: Genetic predisposition and potential for supplement guidance
  - 70% of AMD risk is genetic
  - Commercially available tests
- Journal articles and research on AMD
  - Journals outside of eyecare sometimes have impactful articles
- Kale
  - An example of a carotenoid rich vegetable
- Lutein: benefits and amounts needed
  - Seddon study
  - Richer studies
  - AREDS2
  - Sources
- Lost to follow-up and importance of schedule adherence
  - Clinical trial vs real world f/u and outcomes
- Low vision aids
  - Importance of referral for evaluation
  - Contemporary devices (use of OCR)
- MPOD: risk factor
  - How to measure and modify
  - Practical implications to AMD risk and visual performance
- Macular degeneration: How to discuss with patients

- Importance of patient knowledge with compassion
- Patient education/advocacy groups
- Website resources

#### Melatonin

- Decrease in risk with melatonin supplementation

#### Non-exudative AMD

##### OCT use in diagnosis: and OCT-A

- Dissection of layers to detect abnormal blood vessels
- Multimodal imaging for diagnosis and monitoring
- Case examples using multiple modalities

##### PDS: Port delivery system and new delivery devices/vehicles

- Susvimo approval 10/21, pulled 10/22

- Clinical trial results show non-inferior to Lucentis with far fewer treatments

#### Photobiomodulation

##### Lightsite III study and results

- Decrease in progression
- Improvement in vision

##### Potential practical applications

- OD based therapy
- Patient burden discussed

- CPT code newly enacted

#### Quality of life

##### How AMD patients rank their quality of life

- Comparisons to other conditions
- Factors leading to decrease in quality of live

#### Ranibizumab therapy

##### Standard therapy

- Treat and extend

##### 100x concentration in Susvimo

- Initial approval and removal
- Re-approval and applications
- Potential applications

#### Smoking

##### Importance as a risk factor

- Discussion with patients regarding quitting especially with presence of AMD
- High percentage of patients that unaware of risk imposed by smoking

#### Subclinical AMD

##### Definition

##### Treatment strategies

#### Treat and extend strategy

- Strategies and recent publications (ASRS)

#### Under-diagnosis

- Much of AMD is not diagnosed

- Reference to Neely et al. 2017 paper on underdiagnosis

Patient and practice implications

Understanding outcomes and need for early treatment

Best predictor of outcomes in wet AMD is vision at initiation

Vabysmo

Approval statistics

1<sup>st</sup> approval for both wet amd and diabetes at initial approval

Decrease in burden with q 12-16wk dosing

Overall benefits to patients

Wet AMD statistics

Burden on patients and economy

Likely vision at diagnosis and best predictor of ultimate vision

Comparison to other chronic diseases

Xanthophyls

Reiteration of benefits to eye health and visual performance.

Zeaxanthin: benefits and amounts needed

Potential benefits in regards to AMD

Other potential areas of benefits

Influence on visual performance