

## Intravitreal VEGF (Vascular Endothelial Growth Factor) Inhibitor Products Clinical Resource

### Agents

- Avastin (bevacizumab)
- Beovu (brolucizumab-dblI)
- Byooviz (ranibizumab-nuna)
- Cimerli (ranibizumab-eqrn)
- Eylea (aflibercept)
- Eylea HD (aflibercept high dose)
- Lucentis (ranibizumab)
- Vabysmo (faricimab-svoa)

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### OVERVIEW

Generally, VEGF inhibitors do not require prior authorization. Requests for Quartz Medicare Advantage members may be subject to National Coverage Determinations and/or Local Coverage Determinations based on the VEGF inhibitor being requested.

Intravitreal use of VEGF inhibitors help stop bleeding and blood vessel leakage in the eye.

Intravenous bevacizumab is indicated for several oncology indications. It is also widely used off label intravitreally for age-related macular degeneration and diabetic macular edema. Biosimilar bevacizumab products (Alymsys, Mvasi, Vegzelma, Zirabev) have not been approved for these ophthalmic indications.

Intravitreal brolucizumab is indicated for age-related macular degeneration, neovascular and diabetic macular edema.

Intravitreal ranibizumab and biosimilars are indicated for age-related macular degeneration, neovascular, macular edema following retinal vein occlusion, and myopic choroidal neovascularization. Lucentis and Cimerli only are approved for diabetic macular edema and diabetic retinopathy.

Intravitreal aflibercept and aflibercept high dose are indicated for age-related macular degeneration, diabetic macular edema, and diabetic retinopathy. Aflibercept is indicated for macular edema following retinal vein occlusion.

Intravitreal faricimab is indicated for age-related macular degeneration, neovascular, diabetic macular edema, and macular edema following retinal vein occlusion.

## **GUIDELINES**

The use of VEGF inhibitors are supported in various clinical practice guidelines which vary based on indication for use. For all indications, prescribing should be in consultation with a specialist in area of expertise.

## **FDA APPROVED INDICATIONS**

### Age-related macular degeneration, neovascular

*Aflibercept*: Intravitreal: 2mg every 4 weeks x 12 weeks followed by 2mg every 8 weeks OR 8mg every 4 weeks x 3 doses, then 8mg every 8-16 weeks.

*Brolucizumab*: Intravitreal: 6mg every month x 3 months, then 6mg every 8-12 weeks.

*Faricimab*: Intravitreal: 6mg once every 4 weeks x 4 doses. Subsequent doses are individualized based on visual assessments and can be given every 8 weeks, every 12 weeks, or every 16 weeks.

*Ranibizumab*: Intravitreal 0.5mg monthly x 3-4 doses, then interval may be extended.

### Diabetic Macular Edema

*Aflibercept*: Intravitreal: 2mg every 4 weeks x 5 doses followed by 2mg every 8 weeks OR 8mg every 4 weeks x 3 doses, then 8mg every 8-16 weeks.

*Brolucizumab*: Intravitreal: 6mg every month x 5 months, then 6mg every 8-12 weeks.

*Faricimab*: Intravitreal: 6mg once every 4 weeks x 6 doses then 6mg every 8 weeks OR 6mg every 4 weeks x at least 4 doses, followed by 6mg every 4-12 weeks based on visual assessment.

*Ranibizumab*: Intravitreal 0.3mg monthly

### Diabetic Retinopathy

*Aflibercept*: Intravitreal: 2mg every 4 weeks x 5 doses followed by 2mg every 8 weeks OR 8mg every 4 weeks x 3 doses, then 8mg every 8-12 weeks.

*Ranibizumab*: Intravitreal 0.3mg monthly

### Macular Edema following Retinal Vein Occlusion

*Aflibercept*: Intravitreal: 2mg every 4 weeks

*Faricimab*: Intravitreal: 6mg once every 4 weeks x 6 months.

*Ranibizumab*: Intravitreal 0.5mg monthly x 3 doses, then interval may be extended.

### Myopic Choroidal Neovascularization

Applies to all quartz product offerings including Quartz Medicare Advantage, Quartz Commercial, Quartz Individual and Family, Quartz Align and Quartz Badgercare Plus.

*Ranibizumab*: Intravitreal 0.5mg monthly for up to 3 months.

#### **OTHER USES WITH SUPPORTIVE EVIDENCE**

Evidence exists for use of intravitreal VEGF inhibitors in the following conditions even in the absence of FDA approval. Overproduction of VEGF may lead to other eye conditions, including neovascular glaucoma, retinopathy of prematurity, and other retinal and choroidal neovascular conditions affecting the eye. The use of anti-VEGF agents have been shown to stop the angiogenic process and maintain visual acuity and improve vision in patients with certain neovascular ophthalmic conditions.

1. **Age-related macular degeneration:** Intravitreal bevacizumab 1.25mg monthly x 3 months then as needed based on visual assessment.
2. **Diabetic Macular Edema:** Intravitreal bevacizumab 1.25mg monthly and repeated as needed based on visual assessment.
3. **Retinopathy of prematurity:** intravitreal ranibizumab 0.1mg-0.3mg x 1

#### **CONDITIONS LACKING SUPPORTIVE EVIDENCE**

Coverage is not recommended for circumstances not listed in either the FDA approved indications or other uses with supportive evidence.

#### **REFERENCES**

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