

Avastin® (Bevacizumab) Intravitreal Injection

This handout describes how Avastin® may be used to treat your vision problem.

Avastin is used to treat wet age-related macular decline (AMD) or macular edema.

This is due to a disease such as diabetic retinopathy or retinal vein occlusion.

AMD is the leading cause of blindness in people over the age of 50. It is caused by breakdown of the center part of the retina (macula). The retina is the part of your eye that works like film in a camera. The retina takes the picture. The retina is needed for driving a car, reading fine print, recognizing faces, etc. There are two types of AMD: dry and wet. In the wet form of AMD, abnormal blood vessels grow beneath the macula. Sometimes these vessels leak blood or fluid. This causes the macula to swell, leading to blurred vision. Vision loss may be quick and severe without treatment.

Eye problems can happen in patients of all ages. Sometimes there is no known reason for the abnormal blood vessels. Some causes may include:

- Nearsightedness (high myopia)
- A fungus which affects the eye (histoplasmosis)
- Cracks in the retinal layers
- Eye injury
- Blocking the blood supply to the retina
- Changes to the retina from diabetes, including swelling of the macula

Macular edema is a swelling of the macula. This is caused by leaking retinal blood vessels. It may be caused most often by diabetic retinopathy or the blockage of retinal blood vessels.

What is “Off-Label” status for medicines?

Avastin® was approved by the Food and Drug Administration (FDA). It is a treatment for colon cancer, not to prevent loss of vision. Avastin® works by blocking a substance known as vascular endothelial growth factor (VEGF). Stopping VEGF helps block the blood vessels that the cancer needs to grow. Research has shown that VEGF is one of the causes for the growth of the abnormal vessels in AMD. VEGF also causes leaking of retinal blood vessels in macular edema.

Once approved by the FDA, doctors may use “off label” drugs for other purposes if they are:

- Well-informed about the product
- Proof has shown it has had positive effects with use
- Records of its use and effects are kept current

What are the limits of Avastin®?

The goal of treatment is to stop further loss of vision. Some patients treated with Avastin® have shown a more normal looking macula. Their vision also improved. Although some patients have regained vision, the medicine may not bring back vision that has already been lost. It may not stop further loss of vision caused by the disease.

How is Avastin® given?

The pupil is dilated, and the eye is numbed with drops. The eye is carefully cleaned. Avastin® is injected into the vitreous (jelly-like substance in the back chamber of the eye). Avastin® is given every four to six weeks. Your eye doctor will tell you how often you will receive the injection and for how long.

It is your decision to receive treatment. Without treatment, these diseases can lead to further vision loss and blindness. Sometimes vision loss can happen very fast. At present, there are other FDA-approved drugs for AMD. These treatments include:

- Photodynamic therapy with a drug called Visudyne®
- An injection into the eye of other anti-VEGF medicines such as Lucentis® and Eylea®

For diabetic macular edema or macular edema due to vein occlusion, laser therapy may be needed as well. A different treatment may also include the use of another anti-VEGF injection such as Lucentis® or Eylea®. Your doctor will talk with you about the pros and cons of these other treatment options.

What problems could occur?

When Avastin® was given to patients with colon cancer, some of the problems seen were:

- Stomach ulcers
- Wound healing problems
- Bleeding
- Stroke
- Heart attack
- High blood pressure
- Protein in the urine
- Heart problems

Patients who have these complications not only had colon cancer, but were given 400 times the amount you will be given. For people with cancer, higher amounts are used to spread throughout the whole body.

Eye doctors believe that the risks for patients with eye problems are low. Patients getting Avastin® into the eye receive a small dose. Clinical trials found that these drugs are safe and effective. Patients treated with Avastin® for macular decline did not have

the serious problems seen in patients with cancer.

What are the known risks of eye injections?

Your eye condition may not get better or may become worse. Any or all these problems may cause a loss of vision. They have the chance of causing blindness. More procedures may be needed to treat these problems. During clinic visits or phone calls, you will be checked for side effects. The results will be discussed with you.

Any medicine can cause allergic reactions. These can include: rash, hives, itching, shortness of breath, and rarely, death. These symptoms are more likely to occur in people who have allergies to other drugs, foods, or things in the environment, such as dust or grass. If you have allergies or asthma, tell your doctor

Possible Risks Leading to Loss of Vision with Eye Injections

- Detached retina
- Clouding of the lens of the eye (cataract)
- Increased pressure in the eye (glaucoma)
- Reduced pressure in the eye (hypotony)
- Damage to the retina or cornea
- Bleeding
- Eye infection

Less Severe Risks from Eye Injections

- Eye pain
- Bloodshot eye
- Floating spots with clear centers (vitreous floaters)
- Swelling of the eye
- Vision changes

What precautions should I follow?

- For the day after the injection, do not rub your eyes.
- Do not swim for one day after the injection.
- Tell your eye doctor and any other doctor or dentists that you are on a medicine. It may need to be stopped before you can have surgery.
- Please discuss with your eye doctor if you are using eye drops.

When to Call Your Eye Doctor Right Away

- Severe pain not relieved by medicine
- Blurry or decreased vision
- Sensitivity to light
- Redness of the eye
- Discharge from the eye

When to Go to the Emergency Room Right Away

- Abdominal pain with constipation and vomiting
- Abnormal bleeding
- Chest pain
- Severe headache
- Slurred speech
- Weakness to one side of the body

Phone Numbers

University Station Eye Clinic, 8 a.m. to 4:30 p.m., Monday through Friday:
(608) 263-7171

When the clinic is closed, your call will be forwarded to the hospital paging operator. Ask for the “Eye Resident on Call”. Give the operator your name and phone number with area code. The doctor will call you back.

If you live out of the area, call **1-800-323-8942** and ask to be transferred to the above number.

Please call if you have any questions or concerns.

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 05/2019. University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing HF#6350