

Anti-VEGF intravitreal injection treatment

You have decided, in consultation with your ophthalmologist, to have your eye treated with one or more anti-VEGF injections. Are you being seen by other doctors outside Oogziekenhuis Rotterdam, as well? If so, you must tell these doctors that we are giving you this injection.

Your decision

In order to allow you to make a well-informed decision on whether or not to undergo this treatment, it's important that we give you proper information on what will happen. Please take your time to think it over, before making your decision. You are free to tell us that you don't want to have this treatment. Please note, though – if you don't undergo this treatment, your vision may soon seriously deteriorate. This leaflet contains information about the treatment and the aftercare you will receive.

Purpose

In your eye, as in the rest of your body, various things may cause blood vessels to leak, or new blood vessels to grow. We wish to prevent or stop this. We do so by blocking a substance called VEGF (Vascular Endothelial Growth Factor), which is already present in your body. This may reduce the blind spots you see in your central vision (scotoma) or visual distortions.

In most people, the treatment stops their vision from growing worse, or actually improves it. In many patients, some of the lost vision will never be restored. Some patients' vision gets worse. In such patients, we can try to slow down the deterioration of their vision.

Types of medication

VEGF can be blocked by the administration of several different types of medication. Some of these medicines are used 'off label', which means that a medicine hasn't been formally approved for a certain use by the manufacturer. Ophthalmologists are allowed to use such medications if clinical trials have shown that they work, but they must keep track of how they are using them and what kinds of effects they are having.

Avastin

Avastin was originally developed to slow down the growth of new blood vessels inside tumours. Ophthalmologists use Avastin 'off label'. Avastin has been used in ophthalmology since 2005. By now it has been demonstrated that Avastin is effective in large groups of patients all over the world with various types of eye disorders. Patients who are treated with Avastin for (bowel) cancer will sometimes experience unexpected effects (higher blood pressure, cardiac issues, stroke) when taking this medication. Those patients receive a dose that is 400 times higher than the dose you will be given to treat your eye disorder. They are also administered this medicine directly in the blood, by means of an intravenous infusion,

with shorter intervals between the doses. Patients who are having Avastin injected into their eye are only receiving a small and topical dose, which means they are (far) less likely to develop any complications.

Have you experienced major blood pressure fluctuations, a heart attack, thrombosis or a stroke in the last 6 months, or have you undergone cardiovascular surgery in the last 6 months? Please tell us before undergoing the treatment.

Lucentis

Unlike Avastin, Lucentis has only been approved for the use in ophthalmological applications. It's variation on Avastin. Like Avastin, Lucentis blocks the growth of new blood vessels and leakage from blood vessels. Studies have shown that Lucentis and Avastin are equally effective. Lucentis was only registered by its manufacturer for use in macular degeneration, vascular occlusion in the eye and diabetic macular oedema. In all other eye disorders, it is used 'off label', like Avastin.

Eylea

Eylea was also placed on the market especially for ophthalmological applications. It captures VEGF in a different way than Avastin and Lucentis. Eylea was only registered by its manufacturer for use in macular degeneration, vascular occlusion in the eye and diabetic macular oedema. In all other eye disorders, it is used 'off label', like Avastin.

Before the treatment

- Please tell your doctor what kind of medicines you are taking. We will need a list of all the medicines you are taking. You can get such a list free of charge from your pharmacy. Please bring this list with you every time you visit the hospital.
- Please tell your doctor what kind of operations you are scheduled to undergo or have already undergone. Do this as well in case of changes.
- If you have any allergies, please tell your doctor.
- You are not allowed to use any eye make-up in the 2 days before the operation.

Day of the treatment

- Check your appointment letter for the location of your treatment, as each appointment may take place in a different place.
- Report to the reception desk. A receptionist at the outpatients' clinic where the operating theatre is situated will check a few details with you: your date of birth, any allergies you may have, and which eye will be treated. Afterwards, you will have different types of eye drops applied several times:
 - drops that will numb the eye;
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- drops that will disinfect the eye (povidone-iodine), in order to reduce the chance of your eye getting infected.

If you are allergic to anything (for instance, iodine), we will use a different type of medication. The drops may sting a little in your eyes for a little while.

During the treatment

The ophthalmologist will once again check your details and information on your health status. Before the treatment, your eye and skin will be disinfected with povidone-iodine (or another disinfectant). Afterwards, you are no longer allowed to touch your eye and face.

Your eyelids will be kept open with an eyelid spreader, and your eye will be disinfected again. The ophthalmologist will use an instrument to determine the right spot for the injection. After that, the medication will be injected. You will hardly feel this. You may be able to see the medication in your vision as a 'cloud' or 'spot'. This effect will disappear in a few days.

After the treatment

After the injection, a drop of povidone-iodine (or another medicine) and an ointment containing an antibiotic will be applied to your eye.

An eye pad dressing will be applied to your eye – unless you are unable to see properly with your other eye, in which case you won't have a dressing applied. If that is the case, it would be a good idea to wear protective goggles, glasses or sunglasses.

After the treatment, you can go home at once. However, you will not be allowed to drive home yourself. Therefore, you are requested to bring someone else to the hospital who can take you home after the operation.

When you get home, please remove the eye pad dressing from your eye at once. If you don't, it may get too hot under the dressing.

Rules to observe after the treatment

- You are allowed to use make-up again the day after the treatment.
- During the first 3 days after the treatment, you are not allowed to swim or go to the sauna.
- Don't rub your eye. Wash your hands properly after working in the garden or touching an animal.
- If your ophthalmologist has prescribed Trafloxal eye drops (which contain an antibiotic), you must start applying these the evening after the treatment:
 - 1 drop in the eye in which you received the injection.
 - In the next 3 days, you must apply 1 drop to the eye 3 times daily.

If you apply eye drops to your eye(s) the right way, your eye will heal better and sooner. It will also prevent your eye from getting infected. The nurse can give you more detailed instructions

on how to apply eye drops, or you can refer to www.oogdruppelen.nl, where you will find information in Dutch and English.

Possible complications

- Most people experience little discomfort after the injection. Your eye may feel a little tender though. This sensation will disappear after 1 or 2 days.
- The injection may cause a small bruise in the whites of your eyes. This will cause some or all of the whites of the eyes to turn red. This effect is harmless and will disappear after a few weeks.
- The following things hardly ever happen, but just in case you do experience any of the following:
 - sudden stomach ache with vomiting or constipation;
 - chest tightness;
 - bleeding/haemorrhages;
 - severe headache;
 - signs of paralysis or
 - difficulty talking

please call us at once and tell us that you have received an injection to your eye.

Risks

The administration of injections to the eye poses certain risks. Some patients experience the following:

- pain
- infection
- high eye pressure
- bleeding/haemorrhages;
- cataracts
- retinal detachment

These complications may impair your vision or even cause blindness. The main risk is a bacterial infection of the eye (endophthalmitis). If any complications occur, additional operations or examinations may be necessary.

If you experience one or more of the side effects listed below, contact the Acute Eye Care unit at once.

- your vision is becoming blurrier and blurrier, or your vision is becoming less sharp;
- severe pain in your eye;
- sensitivity to light;
- your eye and/or eyelids are growing redder and redder (compared to the situation immediately after the injection).

The Acute Eye Care unit can be reached 24 hours a day, 7 days a week:

- Monday through Friday, between 7.30am and 4.30pm, phone number 010 401 7727;
- remaining hours, phone number 010 401 7777.

Support and guidance

Naturally, you wish to lead an independent life. In addition to Oogziekenhuis Rotterdam, there are several other specialised organisations that can give you advice on devices that can help you improve your vision, as well as hands-on training. It is important to us that you know that these organisations exist, so that you can start using them as soon as possible. We recommend the following organisations:

- MD Vereniging, phone number 030 298 0707 or www.mdvereniging.nl
- Ergra Low Vision, phone number 070 311 4070 or www.ikwilbeterzien.nl
- Koninklijke Visio, phone number 088 585 8585 or www.visio.org
- Bartiméus, phone number 088 889 9888 or www.bartimeus.nl

Undergoing treatment at Oogziekenhuis Rotterdam

Oogziekenhuis Rotterdam trains doctors, paramedics and nurses. This means that you may be (partially) treated by someone who is still training to become an ophthalmologist. This is always done under the supervision and responsibility of a fully qualified ophthalmologist.

Oogziekenhuis Rotterdam's policy is to refer patients back to their own ophthalmologist, or to another ophthalmologist closer to their own home. Naturally, we will only refer you back if your ophthalmic symptoms are fully under control. This is also true for patients who came to Oogziekenhuis Rotterdam of their own accord, for a 'second opinion'.

More information

- If you have any questions about your appointments, Please contact the medical retina team on phone number 010 401 7833.
- If you have any questions about your diagnosis or treatment, please contact the outpatients' clinic, Monday through Thursday, between 8.30am and 12.00, phone number 010 401 7732.