



## AntiVEGF therapy

AntiVEGF therapies have been used to treat retinal conditions for the last few years, and have revolutionised the vision and lives of many patients.

In several common retinal conditions (such as Wet AMD, Diabetic Macular Oedema, Retinal Vein Occlusion and Myopic Degeneration), there is bleeding or leaking from abnormal or damaged retinal blood vessels, that causes damage to the retinal photoreceptors, leading to impaired vision.

AntiVEGF therapies work by targeting these abnormal blood vessels, and reducing or stopping the bleeding and leakage that can occur. This typically results in prevention of further loss of vision, and can also lead to improve vision.

There are currently 3 types of AntiVEGF therapy:

**Lucentis** – this is licensed to be used in Wet AMD, Diabetic Macular Oedema, Central and Branch Retinal Vein Occlusion and Myopic CNV Degeneration.

**Eylea** – this is currently licensed to be used in Wet AMD and Central Retinal Vein Occlusion.

**Avastin** – this is not licensed for use in the eye, but was the first type of AntiVEGF therapy to be delivered, and is the most widely used AntiVEGF agent in the USA.

Aside from the indications for which a particular AntiVEGF therapy is licensed for, the choice of which agent is used may be dependent on individual patient factors and treatment regime.

Most conditions generally require a course of 3 injections to be given monthly over a 3 month period. After which, further injections may need to be given depending on the response to therapy.

### How is AntiVEGF therapy given?

- All AntiVEGF therapies are given as injections into the vitreous jelly of the eye, and done as an outpatient procedure.
- Patients lie down comfortably on a couch and the eye is numbed with anaesthetic eye drops.
- The skin area around the eye is cleaned, with a sterile drape is placed around the eye and a small clip (speculum) used to keep the eyelids open.
- A small volume (0.05ml) is injected into the eye using a very small needle (*see Image 1*). This is usually not painful as plenty of anaesthetic drops are given.
- Antibiotic drops are applied and patients continue these for a few days at home.
- The whole process takes around 5 minutes, with the actual time taken to give the injection being less than 20 seconds.
- Patients are generally free to return to their normal activities once an injection is given.

## **What are the risks over AntiVEGF therapy?**

AntiVEGF injections have an excellent safety profile. The risk of a serious complication is very rare (less than 1 in 1000) and include:

- Serious infection in the eye.
- Detached retina
- Raised eye pressure affecting vision
- Bleeding in the eye
- Inflammation in the eye
- Cataract

### ***More common side-effects which are not serious include:***

**Red eye** – this is usually due to bleeding of a tiny blood vessels on the surface of the eye and resolves by itself within a few days.

**Blobs in the vision or flashing lights** – this is caused by a slight disturbance of the vitreous jelly as the injection is given and normally resolves within a few hours.

**Sore eye** – the eye may be slightly ache for a day or two following the injection.

## **Who should avoid receiving AntiVEGF therapy?**

AntiVEGF therapy is not advised when:

- There is a history of allergy to a particular AntiVEGF therapy.
- A patient is trying to become pregnant, is pregnant or is breast feeding.
- There is a history of heart attack or stroke in the last 3 months.