Patient information

Eylea treatment for diabetic macular oedema (DMO)

Introduction
The doctor has found that you have swelling affecting the centre of the retina at the back of your eye. This is known medically as diabetic macular oedema (DMO).

Your eye doctor has already given you a patient information booklet about diabetic eye disease and its treatment. This leaflet describes the latest treatment available to you for DMO – Eylea eye injections.

What are Eylea eye injections?
Eylea injections are currently the most effective treatment for DMO. They work by penetrating into the nerve layer at the back of the eye (the retina, see figure 1). The macula is the most important part of the retina and is responsible for your central vision. Over time, the injections close up the leaking blood vessels affecting the macula. This should reduce the swelling in the area, and hopefully improve your vision. Your doctor may suggest laser treatment in addition to these injections, if appropriate.

Since 2012, we have been using ranibizumab (Lucentis) injections for the treatment of DMO. In 2015, aflibercept (Eylea) injections were approved for this condition by the National Institute for Health and Care Clinical Excellence (NICE).
Although just as effective as Lucentis injections, reports have shown that it has a beneficial effect when used in some patients who have stopped responding to repeated treatments of Lucentis. Eylea injections can be used either as a new treatment or as a replacement for when Lucentis stops working as efficiently.

You have had eight Lucentis injections so far but there is still active swelling at the back of your eye, so your doctor is recommending that you change to Eylea injections.

Figure 1 shows the side image of an eye (image courtesy of NHS Choices)

**How does the treatment work?**

If your doctor has suggested Eylea treatment, it means your eye contains extra amounts of a protein called VEGF. It is one of the causes of leaky, abnormal blood vessels. The excess fluid that comes from these blood vessels can build up and lead to changes in your vision.
Eylea is designed to block VEGF. By blocking VEGF, Eylea may prevent damaged blood vessels from leaking fluid into the macula.

You will need to have Eylea injections once a month for the first five months – this is called a loading dose. You will then need to have an injection every two months for one year. After this, you will just need to have the injection when you need it, depending on the condition of your eye.

**What are the benefits?**

The benefits of the treatment are:

- It should reduce inflammation and swelling in the macula of your eye.
- It can also help improve vision and prevent further damage.

**What are the risks of having the injections?**

It is important that you know about the risks of the treatment:

- About two in every 100 patients may have a stroke or mini-stroke (TIA) during the two year course of treatment. However, it is not clear if this is due to the injections or due to diabetes.
- About two in every 100 patients may experience chest pain (angina) and a heart attack.
- Eye-related risks may affect about four in every 100 patients. These may include:
  - A cataract (about one out of every 100 patients may get this)
  - Leakage of blood into the vitreous humour of the eye (about one out of every 100 patients may get this)
  - About one to two people in every 200 patients may get raised eye pressure, retinal detachment or an eye infection
What are the alternatives?
There are alternatives that are licensed for use with people who have DMO and some that are not licensed yet. Amongst the licensed ones are Ozurdex implants and Iluvien implants. These drugs are licensed only for those people who have long standing (chronic) swelling and have had cataract surgery.

Intravitreal triamcinalone (IVTA) and intravitreal avastin injections are unlicensed but still used in the UK.

What happens before the treatment?
You will need to use antibiotic drops for three days before and five days after the injections. Your eye doctor will give you a prescription for this. If you want, you can take paracetamol tablets on the morning of the injection, if you can take them (always read the label; do not exceed the recommended dose).

What happens during the treatment?
The eye doctor will put numbing anaesthetic drops into your eye. This means you should not feel anything during the procedure. When your eye is numb, the eye doctor will deliver the Eylea medication through a tiny needle. While this is happening, you may feel some pressure on your eye.

You will not need to stay in hospital.

Will my vision improve with the injections?
Research has shown that people who have DMO and are treated with Eylea injections have improved eyesight. They are able to read up to two lines more on the eye chart, compared to those who have had laser treatment only. 30 per cent of patients could read three lines more on the eye chart, compared to laser alone, after two years of treatment.

Fewer patients have decreased eyesight after the treatment than is the case with laser treatment alone.
Are there any reasons why I cannot have the injections?

- The injections cannot be given to people who have had a stroke, mini-stroke (TIA) or heart failure in the past six months.
- It will not be used if you have an infection or inflammation in or around the surrounding tissues of the eye.
- Eylea injections are not suitable for pregnant or breastfeeding women.
- Additional support may be needed for patients who may find local anaesthetic difficult to tolerate due to cognitive impairment. In this case, alternative solutions will be discussed with the patient and those who support them.

What happens after the treatment?

After the injection your eye will be covered by an eye shield to protect it. Please keep the shield on the eye until the next morning.

Advice after eye injections

This part of the leaflet gives you information on:

- What you should expect after the injection
- What you need to do
- What to do if you have any problems

What should I expect after the injection?

Your eye may feel painful for up to 48 hours. Rarely the surface of the eye can get scratched during the injection process. This can cause sharp, sudden pains for three to six hours after the injection. This is easy to treat so please get in touch with the Urgent Referral Team at the hospital if this happens:

Urgent Referral Clinic team at Russells Hall Hospital Eye Clinic on:
01384 456111 ext. 3633 (9am to 4.30pm Monday to Friday)
If necessary you can take painkillers such as paracetamol or ibuprofen, if you can take them (always read the label, do not exceed the recommended dose). It is best to avoid products containing aspirin. However, if you take regular soluble aspirin (75mg), you can continue to take it as advised by your GP.

If you have bruising on or around the eye, this should fade gradually over the next couple of weeks.

At times a tiny air bubble can be introduced into the eye during the injection. This appears as a round, dark floater in the centre of your vision the day after the injection. Do not be alarmed as this will get small and should disappear within 48 hours.

**What do I need to do?**
If you have an eye pad to prevent the cornea from being scratched or damaged, you can gently remove this the next morning. The eye pad may be slightly blood stained, this is nothing to worry about.

You can clean your eye the morning after your injection with cool boiled water and a small piece of cotton wool or lint. Close your eye gently and wipe from the inner corner to the outer corner of the eye, using a fresh piece each time and for each eye.

Continue to use your prescribed antibiotic eye drops at home for five days. If you have been prescribed glaucoma eye drops for use at night, you should miss the dose on the first night only. You can start using them again the following day.

**What if I have any problems?**
If you are concerned or worried about anything after your injection contact:

The **Urgent Referral Clinic team at Russells Hall Hospital Eye Clinic** on: **01384 456111 ext. 3633** (9am to 4.30pm Monday to Friday)
Eye emergency, out of hours
In case of an eye emergency after the closing hours of the Eye Clinic (including weekends and bank holidays), please contact the eye doctor on call by ringing the switchboard at:

**Birmingham Eye Centre on 0121 554 3801**

The doctor on call is usually based at the Eye Centre, City Hospital, Dudley Road, Birmingham. They may need to call you back and if necessary, they will arrange for you to visit them.

Can I find out more?
You can find out more from the following weblink:

**RNIB**
http://www.rnib.org.uk/eye-health-eye-conditions-z-eye-conditions/understanding-eye-conditions-related-diabetes

**Note**
The information in this booklet is provided for information only. It is **not** a substitute for professional medical advice or care by a qualified doctor or other healthcare professional. The information is general for the procedure. Individual experiences may vary and all the points may not apply to all patients at all times. Please discuss your individual circumstances with your eye doctor. **Always** check with your doctor if you have any concerns about your condition or treatment.

**Reference**
This leaflet can be made available in large print, audio version and in other languages, please call 0800 073 0510.

This leaflet can be downloaded or printed from:
http://dudleygroup.nhs.uk/services-and-wards/ophthalmology/

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