Intravitreal treatment for Wet Age Related Macular Degeneration (ARMD)

If you have difficulty reading this leaflet, please ask us to send you a copy in a larger print size.

If your first language is not English, we can arrange for an interpreter to be available. Please let us know in advance if you require this service.

Age related macular degeneration (ARMD) is the commonest cause of visual loss in the western world in people over 50 years old. The damage in wet ARMD principally involves the macular area of the retina which is responsible for seeing colour and fine detail. The macular area affected in ARMD is extremely small in size (approximately 0.5 millimetre), however as it contains densely packed collection of important light sensitive cells (cones), even minimal damage can result in significant symptoms.

A person with wet macular degeneration loses the ability to see fine detail centrally for near and far, however it is important to realise that the patient does not become blind completely and the peripheral vision remains preserved.

Are there different types of macular degeneration?

There are two types of age related macular degeneration. A ‘dry’ type and a ‘wet’ type. The dry type results from the gradual breakdown of cells in the macula, resulting in a blurring of central vision. Single or multiple small, round, yellow-white spots called drusen are the key identifiers for the dry type. The dry type is present in the majority (85%-90%) of patients with macular degeneration. In the early phase of dry ARMD, patients may even be unaware that these changes are present, and patients will have normal vision. In a minority of cases these early dry changes can progress and cause significant visual loss. Fortunately, dry ARMD is not as aggressive as wet ARMD, although there is currently no effective treatment to halt or reverse these changes. Furthermore, dry ARMD can change and become the wet form.

Wet macular degeneration affects only about 15% of people who have age-related macular degeneration but accounts for two-thirds of the people who have significant visual loss. In this form of macular degeneration abnormal new blood vessels grow under the retina and begin to leak and bleed. The result is the displacement of the highly organised photosensitive cells in the macula resulting in visual distortion and central visual loss. In later stages scarring may develop and limit the success of intravitreal injections.

Unfortunately, wet macular degeneration can affect both eyes and treatment in one eye does not protect the other eye against development of macular degeneration. Patients should be aware that if symptoms develop in the other eye, they should consult the eye department immediately.

How is ARMD treated?

Drugs under various brand-names (known as anti-VEGF agents) are currently licensed in UK and approved by the National Institute for Health and Clinical Excellence (NICE) for treatment of wet ARMD so long as certain clinical criteria are met (e.g. your existing level of vision and the

absence of scarring at the macula). At the time of writing, Lucentis and Eylea are two commonly used Anti-VEGF agents, but other similar drugs are in the pipeline for use. Anti-VEGF therapy aims to slow the development of weak new blood vessels and stop the leaking and bleeding in the retina. These drugs prevent 'significant' visual loss in 90% of cases and may at times even improve vision (up to 30-40% of cases).

What are the alternatives?

Without intravitreal anti-VEGF treatment, the vision can worsen very quickly, and significant visual loss can ensue within a few days to a few months depending on severity of your condition. Prior to the development of anti-VEGF injections, other modes of therapy involving laser treatment were performed. Clinical trials suggest that anti-VEGF therapy is superior to laser treatment in management of majority of cases of ARMD patients.

How is the injection given?

Your injection may be delivered by a doctor or a trained healthcare provider. Intravitreal injections are administered through a fine needle into the white of your eye. You may have minimal discomfort from the injection (similar to having your blood taken from your arm). The actual process of the injection takes a few seconds; however the whole procedure is expected to last about 10-15 minutes from the time you enter the injection room. The injection is administered whilst the patient is lying back on a comfortable reclining chair. The eyelids and skin around the eye to be injected are cleaned and this area will remain sterile throughout the procedure. Local anaesthetic drops are then applied to numb your eye to minimise discomfort.

A clear plastic device will be used to keep your eye open and help guide the needle. Once the intravitreal injection is administered, antibiotic eye drops are instilled, and your vision is checked by counting fingers.

Some patients may need an injection in both eyes. We can do this on the same day for you; however if you wish to have the second eye injected a week later, this can be arranged.

What happens after the injection?

Your GP will receive a letter about your visit. You will be given your next appointment either on the day of injection or the appointment will be sent to you later. Once the decision has been reached for you to receive intravitreal injections, a course of three injections (a loading dose of one injection per month) will be given.

Administration of further injections will be decided on your review visit, depending on the leakiness of the blood vessels and which anti-VEGF agent you started on.

What are the potential risks and side effects?

Like any medical procedure there is a small risk of a complication from intravitreal anti-VEGF injections. For the majority of patients, the benefit of the injection outweighs the risk of the procedure. The possible complications will be explained to you before treatment with injections and you will be asked to sign a consent form before any treatment is given.

Below are some possible complications from the procedure although it must be stressed that such events are unusual. Permanent loss of vision as a result of the injection is rare (this list does not cover every potential risk).

Major risks (uncommon):

- Serious eye infection resulting in complete blindness (1 in every 1000 people)
- Raised pressure in the eye
- Tear in the retina
- Detachment of the retina
- Cataracts
- Blood clots or bleeding inside the eye
- Inflammation in the eye
- High blood pressure
- Potential for developing stroke

Minor risks (common):

- Red eye (bleed at the superficial surface of the eye)
- Sore gritty eye (usually first 48 hours post injection)
- Small specks (floaters) or transient flashing lights may be seen in your vision for few days

Who should not receive anti-VEGF therapy?

- If you have allergy to the anti-VEGF agent or any of its ingredients
- If you have any active infection, in particular in or around the eye
- If you are pregnant, breastfeeding or actively trying to get pregnant

Caution must be used:

- If you have had a heart attack or stroke in the last three months
- If you have uncontrolled high blood pressure or angina

Can other medicines affect anti-VEGF treatments?

Certain medications can interact with anti-VEGF therapy. You must tell us the names of all the medication you take, in particular blood pressure tablets and anti-coagulants (‘blood thinners’) such as warfarin. Please let us know if you ever change your medication. If you take warfarin, please bring your anticoagulation book for us to see; it would be very useful if you have a blood test for INR within a week before your visit to us.

When should I be concerned and what should I do?

The day after your injection your eye should be comfortable but may appear red due to a small haemorrhage from the injection. If your eye appearance changes i.e. becomes more red, sensitive to light, swollen, or you have pain in the eye or you note worsening vision after the injection, there may be an infection and you need to contact the hospital immediately.

If you are concerned about your eye following an injection, particularly regarding sharp pain or worsening vision, please call the Dowling Unit on 0300 131 4402 between 08.30am-5.30pm weekdays or, at evenings and weekends, please call 0300 131 4500 and ask to speak to the ophthalmology oncall doctor.

What should I do before I come into hospital?

Please allow 2-3 hours for the appointment as you may undergo investigations leading to treatment which, if indicated, will be commenced on the day of your first appointment. After the initial course of three injections, your condition will be monitored approximately 4 to 8 weekly (depending on type of anti-VEGF agent) and we will determine if you need a further injection. You are able to eat and drink and take your normal medication on the day of the injection. No specific treatment is usually required before the injections.

How soon will I be able to resume normal activities?

We would advise you to avoid touching your eye, or getting your eyes wet (e.g. hair-washing, swimming) for at least three days. Otherwise, normal activities can be resumed straight after the injection. Please ask your doctor in clinic about your eligibility for driving.

Please do not drive home after having an eye injection; arrange for someone else to drive you or make alternative transport arrangements.

Will I have to come back to hospital?

Once you have commenced a course of eye injections, you will be regularly monitored afterwards, including optical coherence tomography (OCT) scans of the macula in both eyes.

When can I return to work?

You should normally be able to return to work the day after having an eye injection. However, any work in a dusty or dirty environment should be avoided for three days.

Cancelling your appointment

If you need to cancel or change your appointment, please call the appointments line on **0300 131 4600.**

Consent

The staff caring for you will seek your permission to perform a particular treatment or investigation. You will be asked to sign a consent form that says you have agreed to the treatment and that you understand the benefits, risks and alternatives. If there is anything you don't understand or if you need more time to think about it, please tell the staff caring for you. Remember, it is your decision. You can change your mind at any time, even if you have signed the consent form. Let staff know immediately if you change your mind. Your wishes will be respected at all times.

Important information

The information in this leaflet is for guidance purposes only and is not intended to replace professional clinical advice from a qualified practitioner.

Your comments

We are always interested to hear your views about our leaflets. If you have any comments please contact the Patient Experience Team – on 0300 131 4731 or by email at: esh-tr.patientexperience@nhs.net

Hand hygiene

The trust is committed to maintaining a clean, safe environment. Hand hygiene is very important in controlling infection. Alcohol gel is widely available for staff use and at the entrance of each clinical area for visitors to clean their hands before and after entering.

Other formats

If you require any of the Trust leaflets in alternative formats, such as large print or alternative languages, please contact the Equality and Human Rights Department.

Tel: 0300 131 4434 Email: esh-tr.AccessibleInformation@nhs.net

After reading this information are there any questions you would like to ask? Please list below and ask your nurse or doctor.

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Reference

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The directorate group that have agreed this patient information leaflet: Ophthalmology Department, Diagnostic, Anaesthetic and Surgery division (DAS)

The following clinicians have been consulted and agreed this patient information:

Mr Shahram Kashani, Consultant Ophthalmologist, Mr Kashif Qureshi, Consultant Ophthalmologist, Josh Perinbam (Non-medical Injector), Sister Angela Broomfield, Dowling Unit, Matron Tracy Daniel, Eye Outpatients Bexhill.

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Responsible clinician/author: Ophthalmology Department (ESHT)