

**NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE****Bevacizumab for Eye Conditions****Workshop Briefing Document****Overview**

This document is intended to provide a context for discussion on the place of bevacizumab in current clinical practice for treatment of eye conditions, and whether there is a need for NICE to produce guidance relating to its use. Outcomes from the consultation will inform consideration of referral from the Department of Health.

**Background**

It has been reported that intravitreal bevacizumab is currently used off licence in the treatment of eye conditions affecting the macula including age related macular degeneration and macular oedema.

Age-related macular degeneration (AMD) is associated with loss of central vision with opaque or dark patches and distortion of vision. There are two main types of AMD, wet (neovascular) and dry (non-neovascular) AMD. There are approximately 26,000 new cases of wet AMD in the UK each year.

Macular oedema refers to the accumulation of fluid within the retina at the macular area, which can lead to severe visual impairment in the affected eye.

Currently, laser photocoagulation and photodynamic therapy (PDT) are the main interventions used to prevent the proliferation of blood vessels in wet AMD. Current licensed pharmaceutical agents for wet AMD include ranibizumab, verteporfin and pegaptanib. NICE guidance recommends the use of ranibizumab for wet AMD where the best corrected visual acuity is between 6/12 and 6/96 (for full guidance see NICE technology appraisal 155). Pegaptanib is not recommended for the treatment of wet AMD. The use of verteporfin is recommended only for individuals who have a confirmed diagnosis of classic with no occult subfoveal wet AMD.

Laser photocoagulation is the main intervention used to treat diabetic macular oedema (DMO) and certain types of macular oedema caused by retinal vein occlusion. (RVO) There are currently no licensed pharmaceutical agents for DMO or macular oedema caused by RVO. Surgical treatment options for macular oedema caused by central RVO include laser anastomosis and optic nerve sheathotomy, although these techniques are not widely used.

**The technology**

Bevacizumab (Avastin, Roche) is a monoclonal antibody that inhibits vascular endothelial growth factor (VEGF-A). It does not have a licence for the treatment of eye conditions however it has been reported that it is used as an off licence treatment where options are limited. When used to treat eye conditions, it is administered as an intravitreal injection. Dosages and

retreatment schedules are not established. There is no company sponsored trial data relating to the safety and efficacy of bevacizumab used for the treatment of eye conditions. Bevacizumab is licensed for the treatment of metastatic colorectal, breast, lung, and renal cell cancer.

### **Clinical Evidence**

There is evidence currently available and in development on the use of bevacizumab for eye conditions, the majority of which is for its use in AMD and macular oedema.

The Department of Health has asked the NHS Health Technology Assessment programme to commission work to identify the existing and expected evidence on the use of bevacizumab in the eye, the results of which are due to report in July 2010.

### **Related NICE Guidance**

Technology Appraisal No. 155, Aug 2008, 'Ranibizumab and pegaptanib for the treatment of age-related macular degeneration'. Review date Aug 2011.

Technology Appraisal No. 68, Sep 2003, 'Guidance on the use of photodynamic therapy for age-related macular degeneration'. Review date Aug 2011.

Proposed Technology Appraisal, 'Ranibizumab for the treatment of macular oedema caused by central retinal vein occlusion'.

Proposed Technology Appraisal, 'Dexamethasone for the treatment of macular oedema caused by retinal vein occlusion'.

Interventional Procedure No. 72, Jul 2004, 'Arteriovenous crossing sheathotomy for branch retinal vein occlusion'.

Interventional Procedure No. 48, Mar 2004, 'Macular translocation for age-related macular degeneration'.

Interventional Procedure No. 49, Mar 2004, 'Radiotherapy for age-related macular degeneration'.

Interventional Procedure No. 58, Jun 2004, 'Transpupillary thermotherapy for age-related macular degeneration'.

Interventional Procedure No. 272, Aug 2008, 'Implantation of miniature lens systems for advanced age-related macular degeneration'.

### **Questions for discussion**

How many people are being treated with intravitreal bevacizumab for eye conditions in the NHS?

Is there variation in the use of, and access to, bevacizumab in the NHS in England and Wales for the individual eye conditions?

Where is bevacizumab currently being used in the treatment pathway?

Where intravitreal bevacizumab is used to treat eye conditions in the NHS, is it as a monotherapy or in combination with another treatment?

## **Appendix A**

What are the other treatment options?

What relevant evidence exists or is ongoing that could underpin (a) technology appraisal(s)?