NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Proposed Health Technology Appraisal

Aflibercept for treating visual impairment due to macular oedema secondary to branch retinal vein occlusion

Draft scope (pre-referral)

Draft remit/appraisal objective

To appraise the clinical and cost effectiveness of aflibercept within its marketing authorisation for treating visual impairment due to macular oedema secondary to branch retinal vein occlusion.

Background

The macula is the central part of the retina responsible for colour vision and perception of fine detail. Macular oedema is the accumulation of fluid within the retina at the macular area, which can lead to severe visual impairment in the affected eye.

Retinal vein occlusion (RVO) is a common cause of reduced vision. It is classified into central retinal vein occlusion and branch retinal vein occlusion (BRVO). BRVO is caused by a blood clot in at least 1 of the 4 retinal veins and prevents blood draining from the retina. Blockages in the retinal veins increase the pressure in the retinal capillaries, which can lead to blood and plasma leaking into the macula. These changes trigger vascular endothelial growth factor (VEGF) to be released, which increases the permeability of the blood vessels and causes new vessels to grow.

The impact of vision loss associated with RVO can have a profound effect on vision-related quality of life. Patients may struggle with daily tasks, lose confidence, and become increasingly dependent on family and carers. RVO is also associated with an increase in the risk of vascular causes of death.

RVO affects 1–2% of people aged over 40 years and macular oedema is the most frequent cause of vision loss in people with RVO. It is estimated that in England around 12,900 people with BRVO and macular oedema have visual impairment. The risk of RVO typically increases with age and there is an equal distribution amongst men and women.

Current treatment options for BRVO aim to improve vision and prevent complications. Where visual loss is not severe, a grid pattern of photocoagulation may be beneficial. Dexamethasone intravitreal implant and ranibizumab are recommended in NICE technology appraisal guidance 229 and 283 respectively only if laser photocoagulation has not been beneficial or is not suitable because of the extent of the macular haemorrhage. Ranibizumab is available to the NHS with a patient access scheme. Other medical interventions may include intravitreal injections of bevacizumab,

which does not have a marketing authorisation in the UK for treating any ocular condition.

The technology

Aflibercept solution for injection (Eylea, Bayer) is a soluble vascular endothelial growth factor (VEGF) receptor fusion protein which binds to all forms of VEGF-A, VEGF-B, and the placental growth factor. Aflibercept is administered by intravitreal injection.

Aflibercept solution for injection has a marketing authorisation in the UK for treating 'visual impairment due to macular oedema secondary to retinal vein occlusion (branch RVO or central RVO)'.

Intervention(s)	Aflibercept solution for injection
Population(s)	Adults with visual impairment due to macular oedema secondary to branch retinal vein occlusion
Comparators	• Laser photocoagulation • Bevacizumab (not licensed in the UK for this indication) For people for whom laser photocoagulation has not been beneficial or is not suitable: • Ranibizumab • Dexamethasone intravitreal implant • Bevacizumab
Outcomes	The outcome measures to be considered include: • visual acuity (the affected eye) • visual acuity (the whole person) • adverse effects of treatment • health-related quality of life • mortality.

Economic analysis	The reference case stipulates that the cost effectiveness of treatments should be expressed in terms of incremental cost per quality-adjusted life year. The reference case stipulates that the time horizon for estimating clinical and cost effectiveness should be sufficiently long to reflect any differences in costs or outcomes between the technologies being compared. Costs will be considered from an NHS and Personal Social Services perspective. The availability of any patient access schemes for the intervention or comparator technologies should be taken into account. Cost effectiveness analysis should include consideration of the benefit in the best and worst seeing eye.
Other considerations	If the evidence allows, consideration will be given to subgroups according to: • the presence or absence of ischaemia • baseline visual acuity. Guidance will only be issued in accordance with the marketing authorisation. Where the wording of the therapeutic indication does not include specific treatment combinations, guidance will be issued only in the context of the evidence that has underpinned the marketing authorisation granted by the regulator.
Related NICE recommendations and NICE Pathways	Related Technology Appraisals: Technology Appraisal No. 305, Feb 2014, 'Aflibercept for treating visual impairment caused by macular oedema secondary to central retinal vein occlusion.' Review Proposal Date Feb 2017. Technology Appraisal No. 283, May 2013, 'Ranibizumab for treating visual impairment caused by macular oedema secondary to retinal vein occlusion.' Review Proposal Date Mar 2016. Technology Appraisal No. 229, Jul 2011, 'Dexamethasone intravitreal implant for the treatment of macular oedema secondary to retinal vein occlusion.' Moved to static list. Technology Appraisal in Preparation, 'Aflibercept for treating diabetic macular oedema' Earliest anticipated date of publication Jun 2015.

	Related Interventional Procedures: Interventional Procedure No. 334, Mar 2010, 'Arteriovenous crossing sheathotomy for branch retinal vein occlusion.' Related NICE Pathways: NICE Pathway: Eye Conditions, Pathway last updated: May 2014. http://pathways.nice.org.uk/pathways/eye-conditions
Related National Policy	NHS Standard Contract For Ocular Oncology Service 2013/14 (Adults And Adolescents). "Treatment – Intraocular: steroids for macular oedema (e.g., after radiotherapy)" Ref: D12/S(HSS)/a Department of Health, NHS Outcomes Framework 2014-2015, Nov 2013. Domain 2: Enhancing quality of life for people with long-term conditions. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/256456/NHS_outcomes.pdf

Questions for consultation

Are the comparators listed in the scope considered to be appropriate, that is, are they considered to be established clinical practice in the NHS for treating visual impairment due to macular oedema secondary to BRVO?

Are the subgroups suggested in 'other considerations appropriate? Are there any other subgroups of people in whom aflibercept is expected to be more clinically effective and cost effective or other groups that should be examined separately?

Where do you consider aflibercept will fit into the existing NICE pathway, Eye Conditions?

NICE is committed to promoting equality of opportunity, eliminating unlawful discrimination and fostering good relations between people with particular protected characteristics and others. Please let us know if you think that the proposed remit and scope may need changing in order to meet these aims. In particular, please tell us if the proposed remit and scope:

- could exclude from full consideration any people protected by the equality legislation who fall within the patient population for which aflibercept will be licensed;

- could lead to recommendations that have a different impact on people protected by the equality legislation than on the wider population, e.g. by

making it more difficult in practice for a specific group to access the technology;

- could have any adverse impact on people with a particular disability or disabilities.

Please tell us what evidence should be obtained to enable the Committee to identify and consider such impacts.

Do you consider aflibercept to be innovative in its potential to make a significant and substantial impact on health-related benefits and how it might improve the way that current need is met (is this a 'step-change' in the management of the condition)?

Do you consider that the use of aflibercept can result in any potential significant and substantial health-related benefits that are unlikely to be included in the QALY calculation?

Please identify the nature of the data which you understand to be available to enable the Appraisal Committee to take account of these benefits.

NICE intends to appraise this technology through its Single Technology Appraisal (STA) Process. We welcome comments on the appropriateness of appraising this topic through this process. (Information on the Institute's Technology Appraisal processes is available at http://www.nice.org.uk/article/pmg19/chapter/1-Introduction)