Antivascular endothelial growth factor treatments for neovascular age-related macular degeneration save sight, but does everyone get treated?

To the Editor: Neovascular age-related macular degeneration (NVAMD) is the most common cause of blindness in Australia.[1] Current treatment to prevent further deterioration in vision, and an improvement in some, involves the antivascular endothelial growth factor (anti-VEGF) agents ranibizumab (Lucentis, listed on the Pharmaceutical Benefits Scheme [PBS] since August 2007) or bevacizumab (Avastin, used off-label for NVAMD).[2]

The Australian Macular Degeneration Foundation estimated the annual number of new cases of NVAMD to be 20 734 in 2010 in Australia, based on incidence figures from the Blue Mountains Eye Study, based on an Australian population.[3]

We used PBS data to investigate people accessing treatment for the first time (first prescription for ranibizumab) between 2008 and 2010, and found that 7501 people in 2008, 6979 people in 2009 and 6623 people in 2010 were treated with ranibizumab (indicated by a first and subsequent prescriptions).

Considering the predicted new cases of NVAMD at around 20 000 annually, there is a large gap between people receiving treatment and people in need of treatment. Let us assume that a further 20% of people access treatment under the Repatriation PBS (based on PBS item statistics), and an additional 20% are treated with bevacizumab off-label (based on a 10% observed figure in the largest Australian NVAMD treatment registry, the Fight Retinal Blindness! Project [Mark Gillies, professor of clinical ophthalmology and eye health, University of Sydney, personal communication, 24 November 2012]). These are both intentional overestimates, but they still leave a gap of more than 5000 new cases per year which may be in need of treatment but are not treated.

Factors which may discourage patients from accessing and accepting treatment include availability, cost because of gap fees and the need for ongoing monitoring and treatment. This involves intraocular injections which may be perceived as uncomfortable. However, side effects are few, and virtually no patient discontinues treatment due to these or a perceived discomfort.[4]

Blindness comes with a considerable loss of quality of life, increased morbidity and mortality, higher rates of institutionalisation and increased personal and community cost. In Denmark, anti-VEGF treatment has been shown to halve the rate of legal blindness caused by NVAMD.[5] Thus it is important to reduce barriers to anti-VEGF treatment for NVAMD in Australia.

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Competing interests: Robert Finger has received payment from Novartis for work on an expert statement on treatment of angioid streaks, and from Opthea for work on clinical trials design. Robyn Guymer has received a fellowship and payment for work on advisory boards from Novartis and Bayer, and a travel grant from Novartis.

doi: 10.5694/mja12.11295

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3 Wang JJ, Rochtchina E, Lee AJ, et al. Ten-year incidence and progression of age-related maculopathy: the Blue Mountains Eye Study. *Ophthalmology* 2007; 114: 92-98.

4 Krüger Falk M, Kemp H, Sorensen TL. Four-year treatment results of neovascular age-related macular degeneration with ranibizumab and causes for discontinuation of treatment. *Am J Ophthalmol* 2013; 155: 89-95.

5 Bloch SB, Larsen M, Munch IC. Incidence of legal blindness from age-related macular degeneration in Denmark: year 2000 to 2010. *Am J Ophthalmol* 2012; 153: 209-213.e2. ❑