Treatment options for Diabetic Retinopathy
Medicines Management Programme

Diabetes Mellitus (DM) is associated with the development of a number of well documented complications. One of these is the development of diabetic retinopathy which has the potential to result in blindness.[1] As timely and appropriate care for people with diabetes can significantly reduce visual loss over time the HSE invested in a National Diabetic Retinopathy Screening Programme in 2014.

As the screening programme is likely to result in more patients requiring treatment it is important to consider the potential numbers of patients involved and the costs of the drug therapies available. The Diabetic Retinal Programme Memorandum of Understanding currently does not specify a product of choice and individual hospitals may choose to use any of the therapies outlined below (table 1).

Table 1: Intravitreal therapies available for the treatment of Diabetic Retinopathy

Medicinal product	Licensed for diabetic retinopathy	Price per injection (approximate)	Price per course (approximate)
Bevacizumab (Avastin®)	No	€15-30	€150-300
Ranibizumab (Lucentis®)	Yes	€850-900	€8,500-9,000
Aflibercept (Elyea®)	Yes	€850-900	€8,500-9,000

In March 2015 the pivotal Diabetic Retinopathy Clinical Research Network trial was published in the New England Journal of Medicine.[2] This study did not show any significant difference between bevacizumab (Avastin®) and ranibizumab (Lucentis®) in relation to the primary outcome i.e. the mean change in visual acuity at one year. The study did show some benefit for aflibercept (Eylea®) over bevacizumab and ranibizumab for patients with a pre-treatment visual acuity of less than 69 (approx. 20/50 vision or worse). There were no significant differences among the study groups in the rates of serious adverse events, hospitalisations, death or major cardiovascular events.

The HSE Service Plan indicated that 78,300 patients with diabetes would be screened under the National Screening Programme in 2015.[3] Based on the number of patients to be screened, the percentage of patients likely to require anti-VEGF therapy and the pricing of the therapeutic options (being offered to our hospitals) it is evident that the choice of therapeutic agent will significantly impact on drug expenditure in this area.

The HSE-Medicines Management Programme (MMP) has recommended a Health Technology Assessment (HTA) to guide the treatment strategy. This HTA can only be completed if the relevant companies submit economic dossiers to the National Centre for Pharmacoeconomics (NCPE).

Therefore the current HSE-MMP position is that we recommend BEVACIZUMAB (Avastin®) as the anti-VEGF of choice for the first line treatment of diabetic macular oedema until such time as a full HTA is completed.

References

1. Framework for the development of a Diabetic Retinopathy Screening Programme for Ireland. HSE and Irish College of Opthamologists. October 2008. Available on: http://www.hse.ie/eng/services/publications/topics/Diabetes/Framework_for_a_Diabetic_Retinopathy_Screening_Programme_.pdf
2. Aflibercept, bevacizumab or ranibizumab for Diabetic Macular Edema. The Diabetic Retinopathy clinical Research Network. *N Engl J Med* 2015;372:1193-1203
3. HSE National Service Plan 2015. Available on: http://www.hse.ie/eng/services/publications/corporate/sp2015.pdf