Budget Impact of Faricimab in Patients With Neovascular Age-Related Macular Degeneration (nAMD) in Ireland

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Introduction & Objectives

As the prevalence of neovascular Age-Related Macular Degeneration (nAMD) continues to rise, the growing capacity challenges and high treatment burden place considerable pressure on the healthcare system and can lead to suboptimal outcomes for patients.

nAMD is the leading cause of blindness in people over the age of 50 in Ireland, with over 7,000 new cases diagnosed each year[1]. Intravitreal anti-vascular endothelial growth factor (anti-VEGF) is established as standard of care for the treatment of nAMD[2], with licensed IVTs and off-license treatments both utilised in clinical practice.

Objective: The objective of this study was to assess the budget impact of faricimab, a novel treatment for neovascular Age-related Macular Degeneration (nAMD), on the Health Service Executive (HSE) in Ireland. Specifically, we aimed to evaluate the financial implications of incorporating faricimab into the existing treatment landscape.

Methods

A budget impact analysis was performed to assess the five-year budget impact of Vabysmo (faricimab) in patients with nAMD on the HSE, following reimbursement. A number of assumptions form the basis of the analysis, and these have been validated by literature and clinical elicitation. The diagnosis rate of nAMD is assumed to be 83%, and an anti-VEGF treatment rate of 74% was applied. Literature suggests that bilateral disease occurs in approximately 20% of patients[3], and this was validated in the clinical elicitation. The bilateral rate accounts for any patients receiving anti-VEGF treatment in both eyes.

Due to the loading dose associated with each treatment, as well as the variance of treatment cycles per year due to the T&E treatment regimen, it is inaccurate to apply one cost across all years of the budget impact model. To address this, a 5 year average cost has been calculated for all treatments and this has been applied in the budget impact analysis. An uptake rate of 8% is applied in Year 1, rising to 30% in year 5. Uptake rates have been adjusted to reflect usage of faricimab only in the switch setting, due to the strong usage of bevacizumab in the treatment naive setting[4]. For this reason, the primary use of Vabysmo is anticipated only in the switch setting, for patients who require a more durable treatment alternative to currently available IVTs.

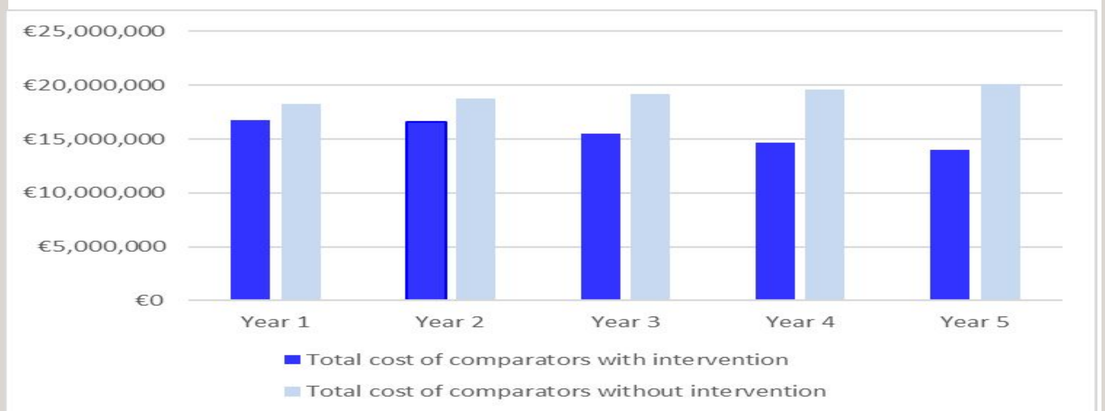
Table 2: Cost of interventions and comparator

Drug	Price (€)	Injections in year 1	Injections in year 2	Cost per year (€)
Faricimab	€857.61	6.79	4.69	€4,382.36
Aflibercept	€856.46	8	5.63	€5,226.83
Ranibizumab	€800.65	9.13	7.14	€6,035.32

Results

The results showed that faricimab could have a negative budget impact on the Irish HSE of **-€3,473,103** , calculated over 5 year. The injection frequency of faricimab is lower than the injection frequency of aflibercept and ranibizumab, as can be seen in table 2. The results of total budget impact of faricimab can be seen in table 1 and figure 1.

Figure 1: Visual budget impact



Conclusion

Faricimab presents a promising treatment option for nAMD in Ireland, potentially reducing overall costs despite being more expensive than bevacizumab. Economic analysis shows faricimab as less costly than other on-label anti-VEGF agents like aflibercept and ranibizumab, offering a cost-effective solution. Introducing faricimab could lessen the treatment burden and provide a viable alternative, aiding in the sustainability of Ireland's healthcare system and addressing the rising costs associated with an aging population and increasing nAMD cases.

Table 1: Drug-budget impact

Population	Year 1	Year 2	Year 3	Year 4	Year 5	5-year cumulative
Eligible population	3,361	3,444	3,528	3,613	3,697	17,643
Proportion treated (%)	8%	11%	19%	25%	30%	19%
Treated population	269	379	670	903	1,109	3,330
Gross drug-budget impact						
Including VAT	€1,207,356	€1,700,493	€3,008,621	€4,050,732	€4,974,893	€14,942,095
Excluding VAT	€964,830	€1,358,909	€2,404,269	€3,237,048	€3,975,570	€11,940,626
Net drug-budget impact						
Including VAT	-€288,546	-€413,523	-€697,149	-€930,767	-€1,143,118	-€3,473,103
Excluding VAT	-€230,585	-€330,457	-€557,110	-€743,801	-€913,496	-€2,775,449

References

1. Munier, A et al. “Causes of blindness in the adult population of the Republic of Ireland.” The British journal of ophthalmology vol. 82,6 (1998): 630-3. doi:10.1136/bjo.82.6.630
2. Schmidt-Erfurth, U et al. “Guidelines for the management of neovascular age-related macular degeneration by the European Society of Retina Specialists (EURETINA).” The British journal of ophthalmology vol. 98,9 (2014): 1144-67. doi:10.1136/bjophthalmol-2014-305702
3. Joachim N, Colijn JM, Kifley A, Lee KE, Buitendijk GHS, Klein BEK, et al. Five-year progression of unilateral age-related macular degeneration to bilateral involvement: the Three Continent AMD Consortium report. The British journal of ophthalmology. 2017;101(9):1185-92.
4. Flaxel CJ, Adelman RA, Bailey ST, Fawzi A, Lim JI, Vemulakonda GA, et al. Age-Related Macular Degeneration Preferred Practice Pattern®. Ophthalmology. 2020;127(1):P1-p65.