The dominance of Eylea is expected to persist in the foreseeable future

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Bayer/Regeneron's Eylea (aflibercept) is a fusion protein that is used to treat retinal diseases such as wet age-related macular degeneration (wAMD), proliferative diabetic retinopathy (PDR), and diabetic macular edema (DME). These diseases are frequently exacerbated by choroidal neovascularisation, a process in which new blood vessels grow from over-expression of pro-angiogenic proteins such as vascular endothelial growth factor (VEGF) and platelet-derived growth factor (PDGF).

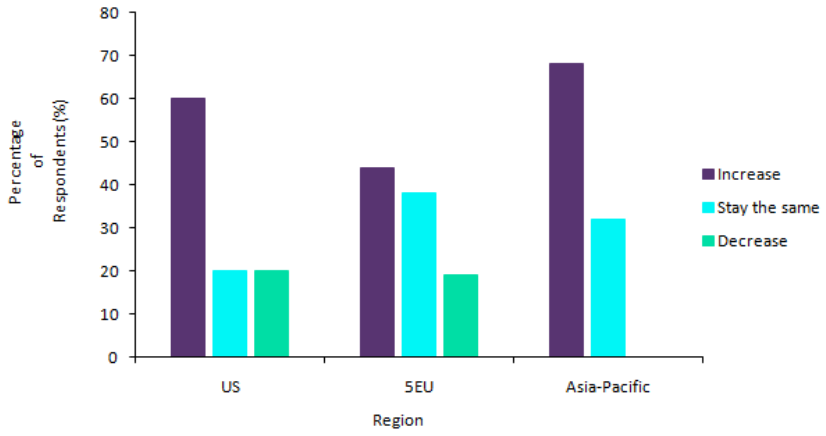
Roche/Genentech also has a portfolio of anti-VEGF products that are used to treat ophthalmic indications. These are the monoclonal antibodies Lucentis (ranibizumab) and Avastin (bevacizumab). Although Eylea and Lucentis are thought to have similar safety and efficacy profiles, Eylea is injected into patients' eyes between 6–8 times per year, while Lucentis is administered on a monthly basis. This reduction in the frequency of administration is an important benefit because patients with retinal diseases such as wAMD and PDR are likely to have mobility issues and live with comorbidities such as cardiovascular disease, neuropathy, or nephropathy.

The urgency of treating retinal diseases is underscored by the fact that without pharmacotherapeutic intervention, most patients will rapidly lose vision. Loss of central vision can prevent people from performing daily activities such as reading, writing, and driving. The fact that many diabetic patients are in the workforce makes diabetic retinopathy a major concern. Early intervention is associated with positive outcomes and improvements in patients' quality of life.

Other favourable aspects of treatment with Eylea include the well-established notion that Eylea is an effective medicine. This is evidenced by the fact that Eylea has met efficacy endpoints in over 200 clinical trials and has been seen to resolve subretinal fluid, a major component of vision-threatening diabetic retinopathy and DME.

According to a survey of ophthalmologists from three geographic regions, the US, Europe (France, Germany, Italy, Spain, and the UK), and Asia-Pacific (Japan, China, and Australia), the majority of physicians from all regions expect the number of patients treated with Eylea to increase over the next two years.

Figure 1: Physicians' Perspectives on How the Prescription Rate of Eylea Will Change Between 2019 and 2022



Source: GlobalData; Ophthalmologists surveyed for GlobalData's *Diabetic Retinopathy: Global Drug Forecast and Market Analysis to 2029* report, July 2020.

More than half (68%) of doctors in the Asia-Pacific region expect Eylea to be prescribed to more patients between 2019 and 2022. No doctors in this region thought that the prescription rate of Eylea would decrease. This may be because safe and effective longer-acting anti-VEGF therapies are not expected to launch in the Asia-Pacific region until 2024. The majority (60%) of aflibercept biosimilars in development in the Asia-Pacific region are in early-stage development. Early-stage development in this context refers to products at the Discovery or Preclinical stages. Because aflibercept biosimilars are unlikely to launch in this region within the next two years, the sales erosion that would be expected with their launch is delayed, leaving sales of Eylea unscathed for the foreseeable future. The majority (60%) of ophthalmologists in the US also expect to prescribe Eylea to more patients over the next two years. The lower annual cost of therapy (ACOT) of Eylea compared to Lucentis in the US makes this drug a cost-effective and practical choice for patients who cannot or choose not to receive monthly injections of Lucentis.

While drug developers continue to spearhead innovation in the retinopathy market, the dominance of Eylea is expected to persist for the foreseeable future. Globally, Eylea generated $8.1B in 2019. Sales are expected to reach $8.4B in 2022, increasing at a compound annual growth rate (CAGR) of 1%.