MacularNEWS

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FRB! provides insights to guide clinicians considering switching treatments for wet macular degeneration (AMD).

Australian patients have greatly benefited from access to eye injections that inhibit vascular endothelial growth factor-A (VEGF-A) for the treatment of wet (neovascular) age-related macular degeneration (AMD) for nearly 20 years.

Professors Mark Gillies and Daniel Barthelmes developed the Fight Retinal Blindness (FRB!) registry in 2007 to track the safety and effectiveness of eye injections in the real-world setting, recognising they would likely revolutionise the treatment of wet AMD and other retinal diseases.

The FRB! project has positively influenced global practice patterns for over 16 years. Insights gained through observing, but not interfering with treatment decisions, have helped improve patient outcomes. Observational research based on FRB! data has also enhanced our understanding of the relative strengths and weaknesses of available drugs – a role that continues as newer agents become available.

Faricimab (Vabysmo) is the first bi-specific drug designed to be injected in the eye. "Bi-specific" means it blocks not only VEGF-A, but also another hormone called Angiopoietin-2 (Ang-2) that makes blood vessels leak, potentially making it more effective and longer lasting than existing drugs.

Director's Message

In this edition of **MacularNEWS**, we explore the recent findings from the Fight Retinal Blindness! (FRB!) Project which gives us insights into the different treatments used to treat wet macular degeneration.

Thank you for your continued interest in our work. I hope you enjoy reading this edition.

Professor Mark Gillies
Macula Research Group

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Patients with wet AMD treated with Vabysmo safely achieved vision improvements that were equivalent to aflibercept (Eylea) in the major 2-year clinical trials. This was achieved even though 80% of Vabysmo patients enjoyed longer breaks between injections than the patients treated with aflibercept.

Trial data provides the evidence for approval of new drugs, but it can be very challenging translating that evidence to the care of existing patients. Clinical trial patients have not been treated before whereas the patients we immediately think of treating with new drugs when they are released are those who have not responded ideally to existing agents, for example, they may have to be treated every 4 weeks indefinitely.

A project utilising data from FRB! has been tracking the outcomes of Australian patients with wet AMD that had their treatment switched, mainly from Eylea, to Vabysmo after it was approved in January 2023. The aim was to test if patients who were switched to Vabysmo were able to improve their disease activity (swelling and bleeding) and/or go longer between injections while also maintaining their visual acuity through 12 months.

The 9-month results were presented at the annual meeting of the American Society of Retinal Specialists in Stockholm, Sweden, by Dr Adrian Hunt. The 12-month results have been submitted for publication and were recently presented to the European Society of Retinal Specialists meeting in Barcelona, Spain, by Professor Mark Gillies.

High quality 12-month data were available in FRB! for 90% of 383 eyes switched to Vabysmo by 27 eligible retinal specialists in Australia in the first 6 months of it being available. The patients selected for switching tended to have high rates of disease activity and required frequent injections.

The key findings of our 12-month study were that patients with wet AMD that switched to Vabysmo had significantly lower rates of disease activity (Active: 65% before vs. 35% after) and longer treatment intervals between injections (Interval: 7-weekly before vs. 11-weekly after) than they did before switching. At 12 months there was a subtle decrease in visual acuity in switchers, around 1 to 2 letters on a vision chart, that was in keeping with year-on-year changes previously reported in eyes receiving injections for AMD, that was similar to patients not switched by the same doctors during the same time. The decline in vision after switching was driven by eyes that were inactive rather than active when they switched.

Eyes with active disease appeared to benefit the most from switching to Vabysmo with half becoming inactive while also maintaining vision through 12 months. In eyes that were inactive when they switched, the disease reactivation rates were low, considering that treatment intervals were extended significantly, however there was a loss of 3.5 letters on average in this group through 12 months.

Seventeen percent of eyes were switched back to their original drug. These eyes generally had lower rates of inactivation, without interval extension, than eyes that stayed on Vabysmo through 12 months. The safety of Vabysmo was in keeping with previous reports with no serious adverse events.

The results from this report from FRB! support consideration of switching treatment to Vabysmo in eyes with AMD that are persistently active despite frequent treatment with 1st generation VEGF inhibitors. In future research, we look forward to seeing if eyes that are new to treatment manage to replicate the outcomes reported in the Vabysmo clinical trials.

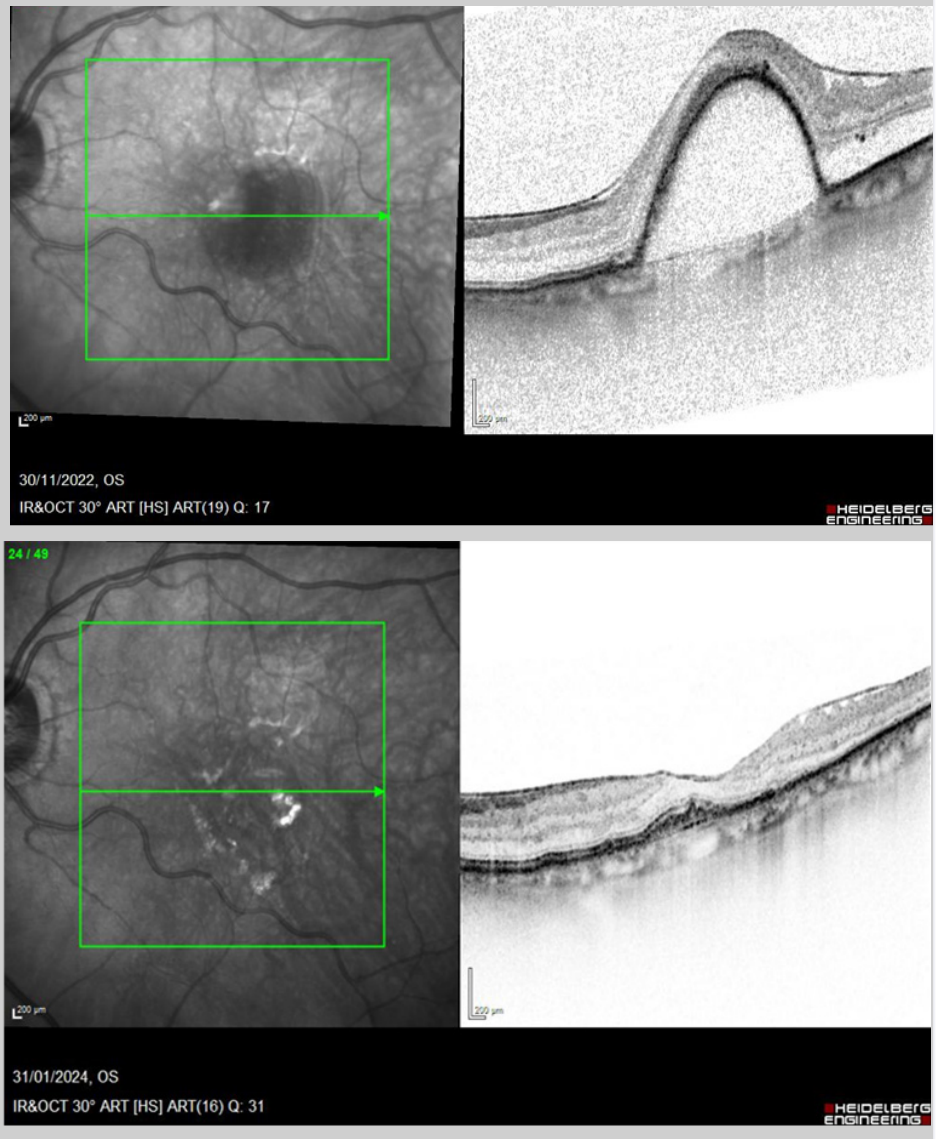

Figure 1: A 75-year-old female with polypoidal choroidal vasculopathy treated for 4 years with Eylea at 4-weekly intervals with visual acuity of 6/15 was switched to Vabysmo in January 2023 (Top OCT image). One year after switching, the patient's visual acuity improved to 6/7.5 and the interval between injections had been extended to 13 weeks (Bottom OCT image).

Meet Dr. Yohei Hashimoto

Figure 2: Yohei Hashimoto
Biostatistician, Save Sight Institute

Yohei Hashimoto is a biostatistician at Save Sight Institute, the University of Sydney. He was an ophthalmologist in Japan mainly focusing on macula. He was awarded a PhD degree in 2022 at the University of Tokyo, where he studied clinical epidemiology in ophthalmology using a large claims database. The examples of his papers are the association between the use of eye drops and neonatal adverse events, the incidence of sympathetic ophthalmia, and ocular adverse events after COVID-19 vaccination. With the skill and knowledge he has built up, he is working on the analysis of the Fight Retinal Blindness! Registry data under the supervision of Professor Mark Gillies.

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