

Two-year real-world outcomes from the use of Faricimab in neovascular age-related macular degeneration resistant to other anti-vascular endothelial growth factors

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Faricimab is the first and only bi-specific molecule which targets anti-vascular endothelial growth factor (Anti-VEGF) and angiopoietin 2 (Ang-2). It was approved by the Medicines and Health Products Regulatory Agency (MHRA) in May 2022.

In this study, we report the two-year real-world outcome of Faricimab efficacy, durability and safety in a cohort of neovascular age-related macular degeneration (nAMD) with a chronic and refractory disease.

AIM:

To evaluate long-term visual, anatomical, and treatment outcomes of faricimab in patients with nAMD showing suboptimal response to aflibercept 2mg in a real-world setting.

METHODS:

This is a single-centre retrospective study.

Treatment plan:

- 4-monthly loading dose and review at 8-weeks post-loading.
- Treat and extend protocol where intervals are reduced or extended by 2-4 weeks depending on disease activity.
- a minimum of 20 months of follow up.

At each visit we assess visual acuity, slit-lamp bio microscopy, dilated fundus examination and spectral-domain optical coherence tomography (SD-OCT) followed by *faricimab* injection. Information collected:

- Demographics, number/frequency and type of previous treatments.
- Best recorded visual acuity (BRVA).
- Intra-retinal fluid (IRF), subretinal fluid (SRF), central subfield thickness (CST).
- Treatment interval and safety.

- Data analyses and ANOVA was performed using STATA/MP v15.1) for determination of statistical significance (P<0.05).

RESULTS:

152 eyes from 126 patients with treatment-resistant nAMD. Mean age was 83 years and 64% were female. Before switching, all of our patients had received a mean of 8.0 ± 1.72 aflibercept 2mg injections in the preceding year. A cumulative mean of 13.43 ± 1.56 Faricimab injections were received over 2 years.

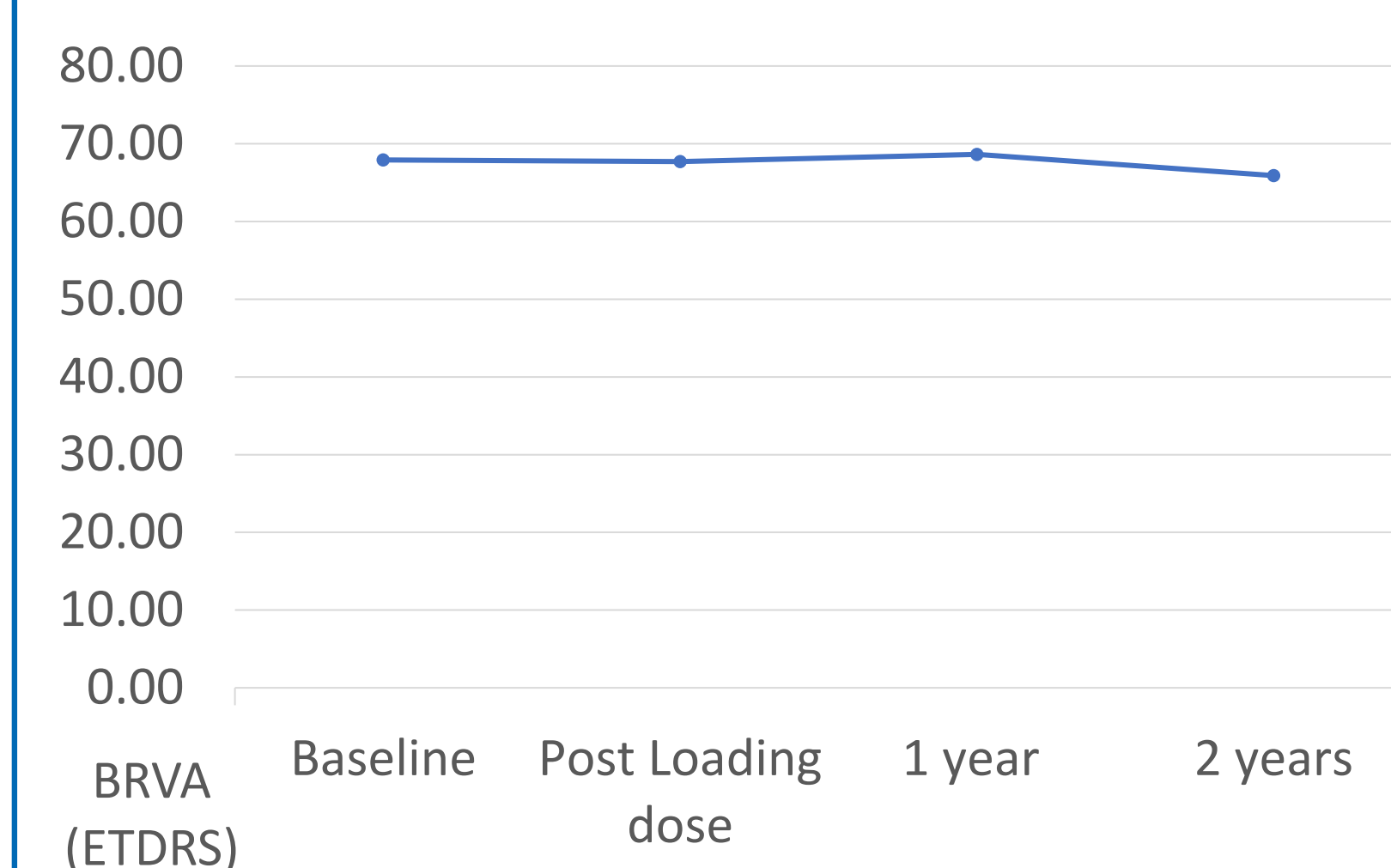


Figure 1: Best recorded visual acuity (BRVA) from baseline to last visit.

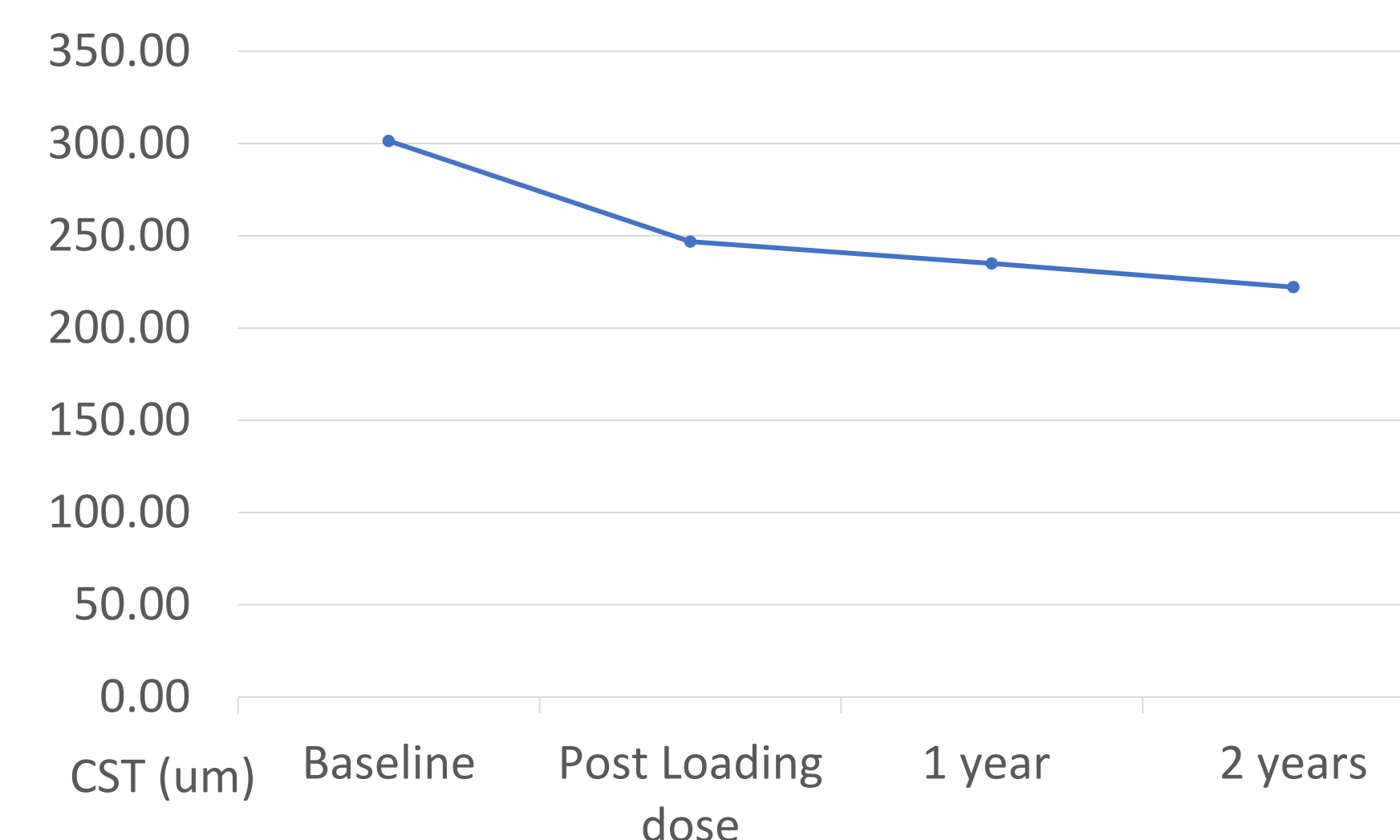


Figure 2: Central subfield thickness (CST) from baseline to last visit.

From Baseline to Year 2, vision was preserved. Mean BRVA was maintained throughout the follow-up at (65.9 ± 17) letters (Figure 1). A SD-OCT revealed a significant reduction in CST from $301.5 \pm 86.9 \mu\text{m}$ at baseline to $222.2 \pm 49.2 \mu\text{m}$ at Year 2 ($p < 0.001$) (Figure 2).

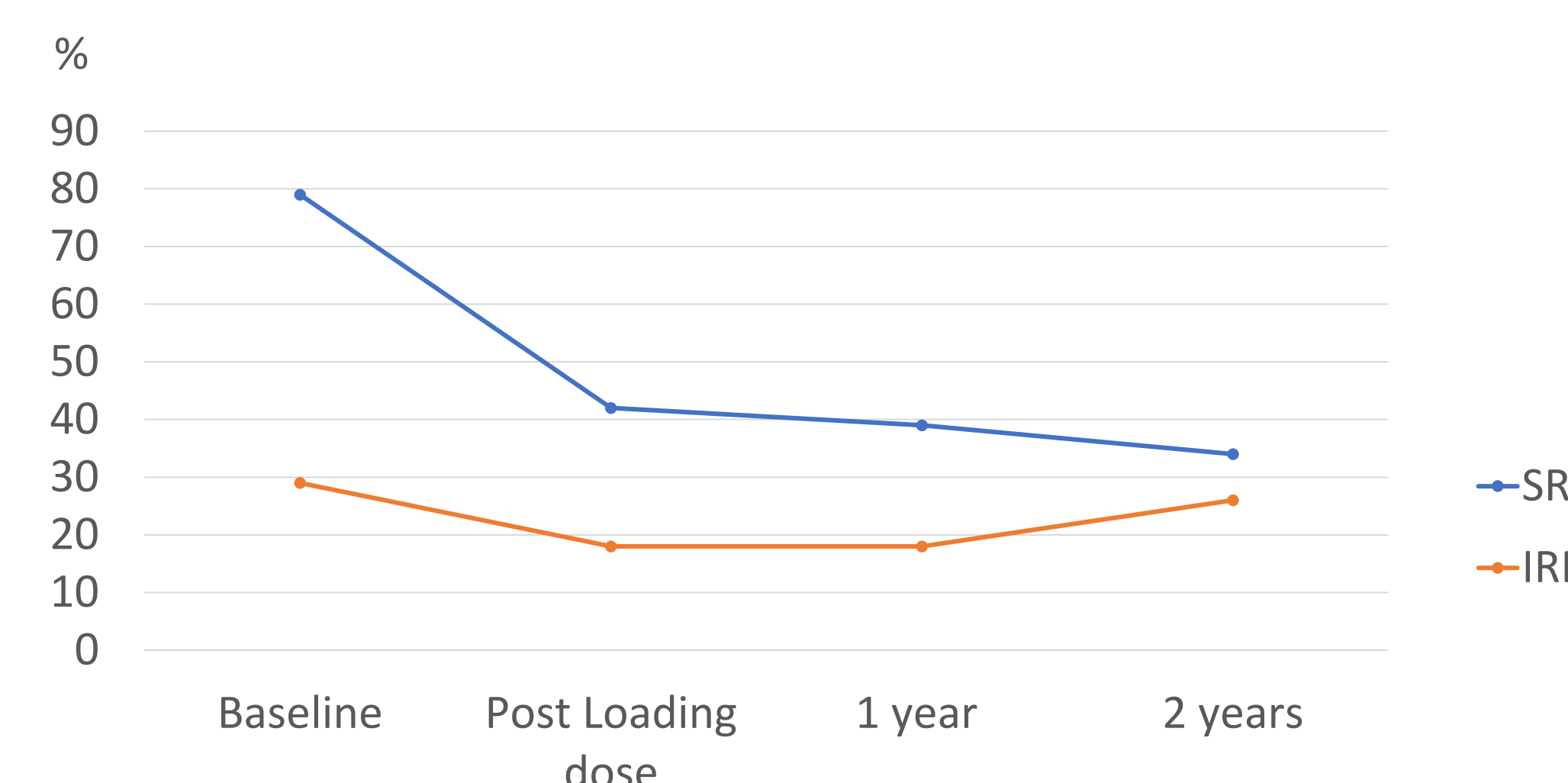


Figure 3: Comparison of subretinal fluid (SRF) and intraretinal fluid (IRF) from baseline to last visit.

Complete fluid resolution rose from 12.5% at baseline to ~approximately 50% in Years 1 and 2. Subretinal fluid decreased from 79% to 34% ($p < 0.001$), while intraretinal fluid improved post- loading but recurred in 25.7% by Year 2 (Figure 3).

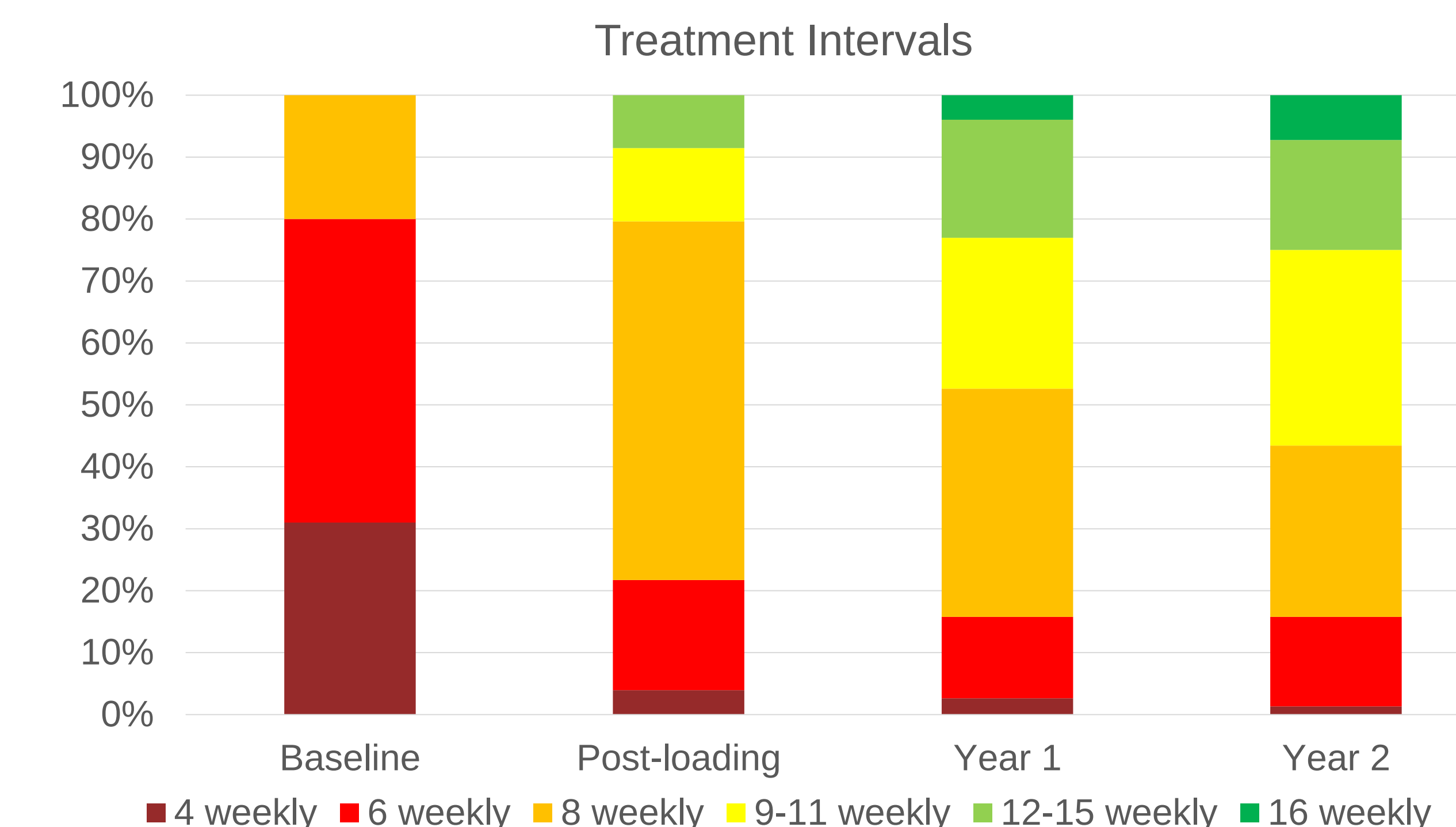


Figure 4: Comparison of treatment interval from baseline to end of the loading course.

On average patients were on 6-week treatment interval before transitioning to Faricimab. It extended to 9.7 ± 3.1 weeks at Year 2 ($p < 0.001$), 18% reached ≥ 12 - week, 7% ≥ 16 -week intervals (Figure 4).

Out of the 2042 injections given, ocular adverse event was seen in 4 patients (2.6%): 1 anterior uveitis, 1 retinal pigment epithelium (RPE) tear, one retinal detachment, and one new fourth nerve palsy

No cases of endophthalmitis, retinal vasculitis, or retinal artery occlusion.

CONCLUSION:

Our study shows in treatment-resistant nAMD, switching to faricimab maintained visual function, improved anatomical outcomes by achieving sustained CST reduction, improved fluid control. It also enabled extended treatment intervals, and showed a favorable safety profile.