Cost-Minimization of Faricimab Vs Aflibercept 8 Mg in Patients with Neovascular Age-Related Macular Degeneration Evaluating the Impact of Retreatment Criteria

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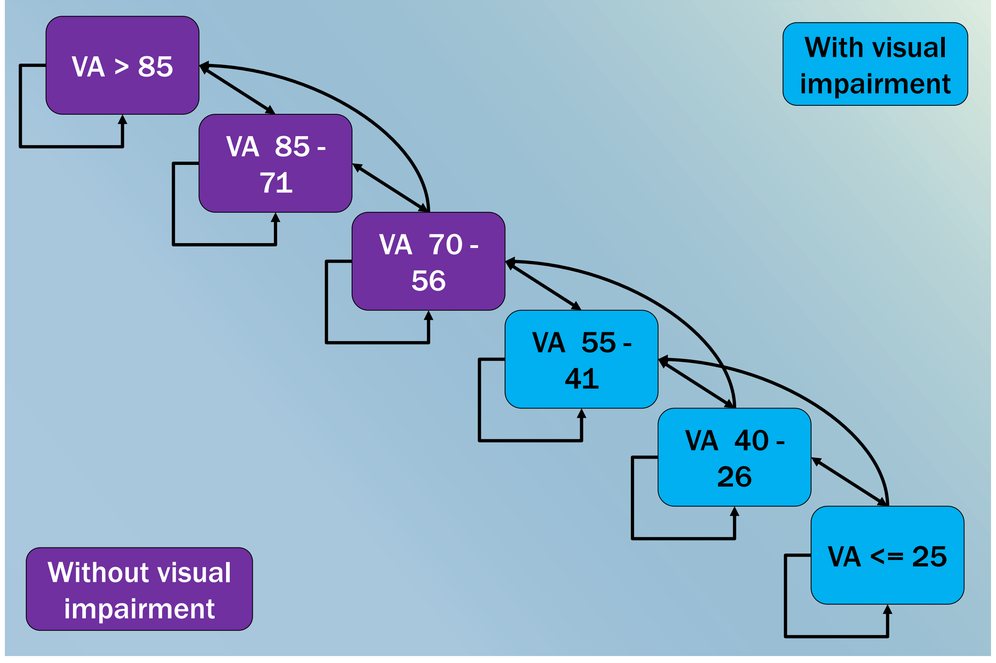
Introduction

- Faricimab is a bispecific antibody targeting ANG-2 and VEGF for the treatment of neovascular age-related macular degeneration (nAMD).
- In the TENAYA and LUCERNE trials,[1] patients were treated with faricimab in a Treat & Extend (T&E) regime requiring simultaneous visual acuity and anatomical stability to determine treatment intervals.
- Recently, aflibercept 8 mg has been investigated in the PULSAR[2] as well as the CANDELA[3] trial. PULSAR applied less stringent disease activity criteria than recommended for clinical practice[4] to determine patient's ability to extend treatment intervals after the loading period. Hence, it may be challenging to reproduce the results in routine care.
- This research aims to assess the costs of faricimab vs. aflibercept 8 mg simulating the use of more comparable disease activity criteria.

Visual acuity (VA) related health states and transitions for both eyes



Methods

- A Markov cohort model illustrated on the left based on the NICE guideline review[5] was developed to estimate bilateral visual acuity linked to life expectancy, injection frequency and associated costs from a UK healthcare system perspective.
- The base case was informed by the interval distribution in TENAYA & LUCERNE for faricimab and the CANDELA trial for aflibercept 8 mg since the study used a more comparable definition of disease activity.
- Deterministic sensitivity analyses were performed for costs and key model parameters. In a scenario analysis, interval distributions were informed by PULSAR for aflibercept 8 mg and TENAYA & LUCERNE for faricimab simulating the disease activity criteria from PULSAR.[6]
- Time horizon was 25 years to reflect a life time horizon.
- Drug prices were based on publicly available list prices in the UK (faricimab: 857 £, aflibercept 8 mg: 998 £).

Results

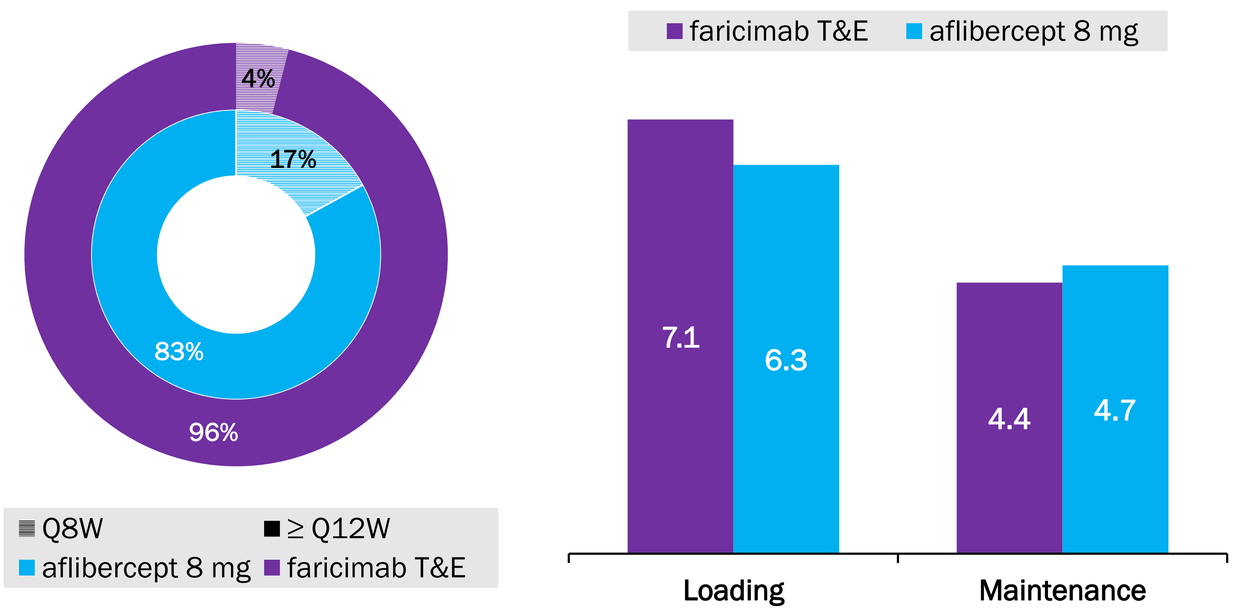
Disease activity criteria for treatment intervals

	Base case	Scenario
Disease activity criteria	Visual acuity **OR** anatomical findings	Visual acuity **AND** anatomical findings
Reference	**Faricimab:** TENAYA & LUCERNE at one year	**Faricimab:** TENAYA & LUCERNE at Week 20 (simulation)*
	Aflibercept 8 mg: CANDELA at Week 44	**Aflibercept 8 mg:** PULSAR at Week 48

* Treatment intervals thereafter were fixed until week 60.

Results

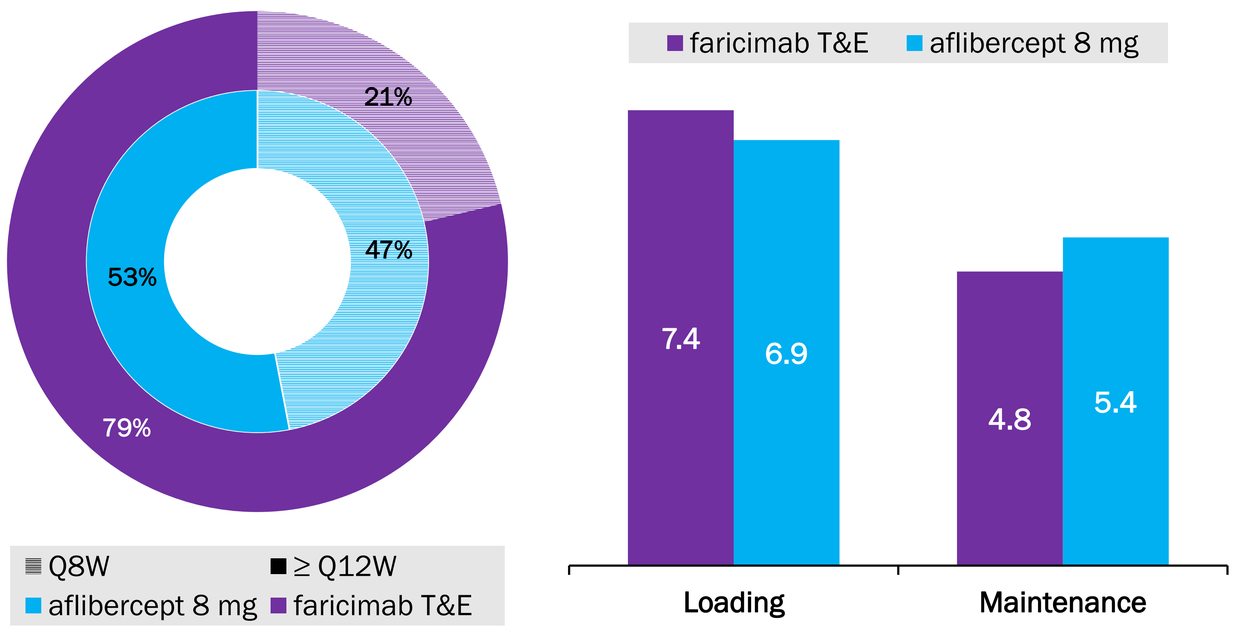
Scenario: Treatment interval distribution and annual injections



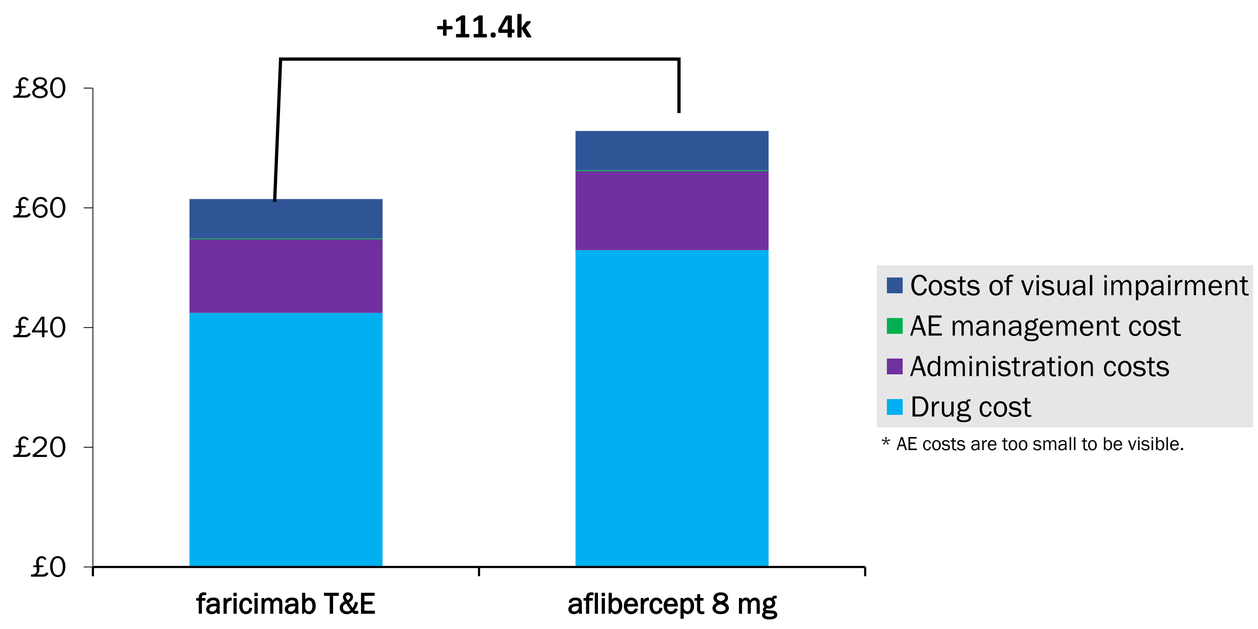
Summary:
The base case/scenario analysis simulates treatment intervals in case visual acuity and/or anatomical criteria must be met to assign intervals.

Summary:
Consistently, more patients on **faricimab T&E** achieve **intervals of ≥ Q12W** leading to fewer annual injections during the maintenance phase.

Base case: Treatment interval distribution and annual injections



Summary of costs (in thousand GBP)



* AE costs are too small to be visible.

Summary:
More patients on **faricimab T&E** achieve **intervals of ≥ Q12W** leading to fewer annual injections during the maintenance phase. Faricimab treatments are higher in the first year due to a longer loading phase.

Summary:
Total costs of **faricimab T&E** are substantially lower vs. aflibercept 8 mg. This is driven by less treatments over a lifetime and associated lower drug and administration related costs.

Conclusions

Faricimab offers an innovative option enabling patients to potentially extend their treatment intervals for longer, thereby reducing their treatment burden as well as expanding health system capacities.

The base case results indicate that faricimab T&E might be cost-saving compared to aflibercept 8 mg over lifetime when analyzing treatment regimens reflecting recommendations for clinical practice.

Sensitivity and scenario analyses were consistent with the base case.

The analysis highlighted the relevance of the criteria being used to evaluate disease activity and, consequently, treatment intervals. Therefore, retreatment criteria should be harmonized when doing indirect comparisons of durability.

References
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