

Prescription Ratio and Costs of Intravitreal Injections for Diabetic Macular Oedema from 2015 to 2022

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“After failure of IVOM first-line treatments with anti-VEGF, steroids offer the potential for an economical and resource-saving second-line treatment.”

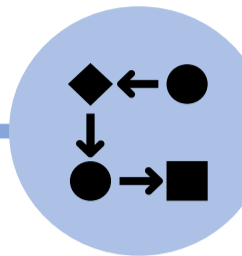
BACKGROUND

- Intravitreal drug injection (IVOM) is an established therapeutic option for the treatment of diabetic macular oedema (DME).
- However, up to 40% treatment non-adherence has been reported in IVOM first-line therapy with anti-vascular endothelial growth factor (anti-VEGF).¹ Steroids such as the longer-acting fluocinolone acetonide implant (FAc) and the shorter-acting dexamethasone implant are approved as second-line therapies.
- The aim of this evaluation is to analyze the prescription ratio of IVOM in the last eight years (2015-2022) and its impact on statutory health insurance (SHI) expenditures.



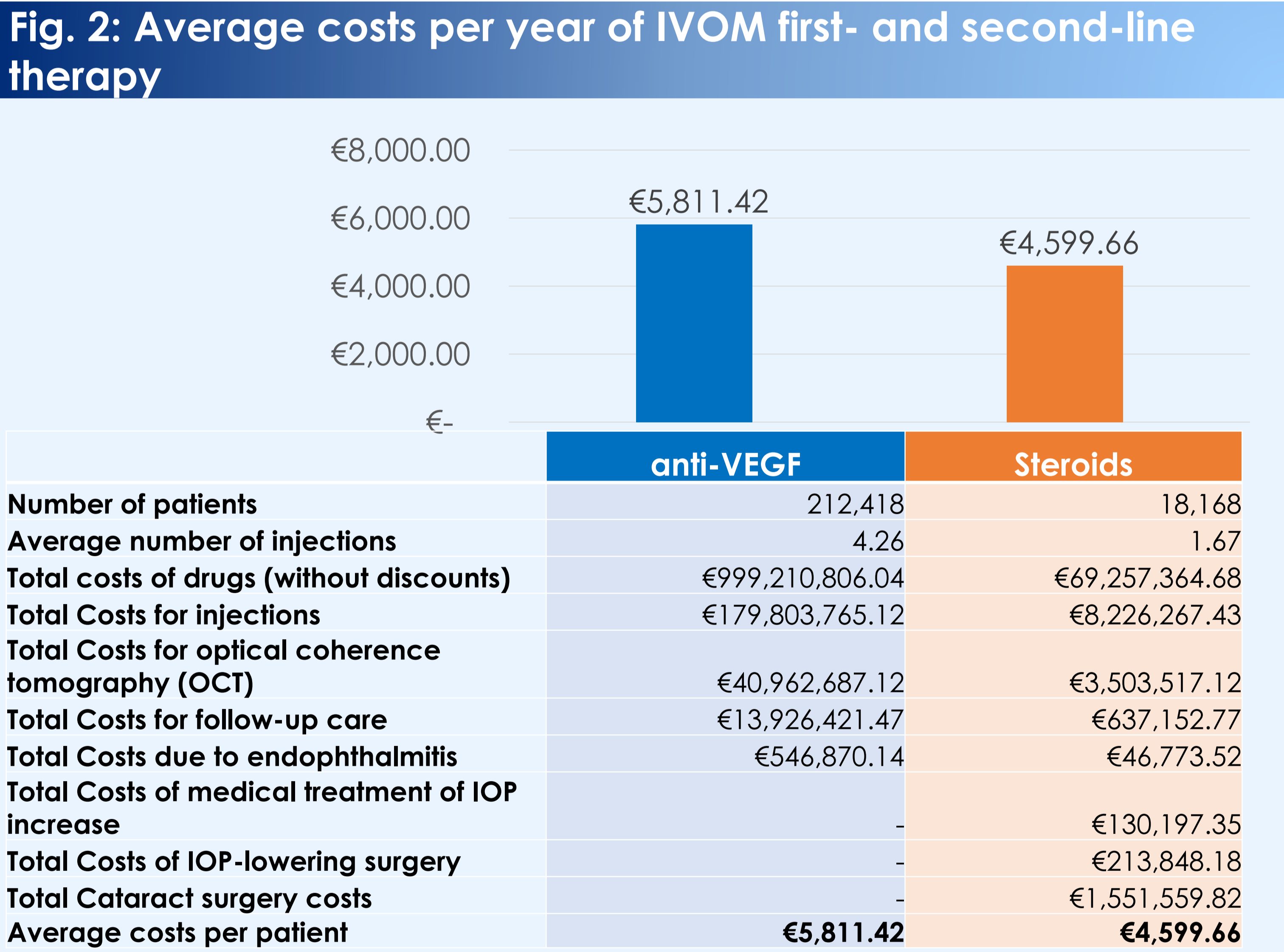
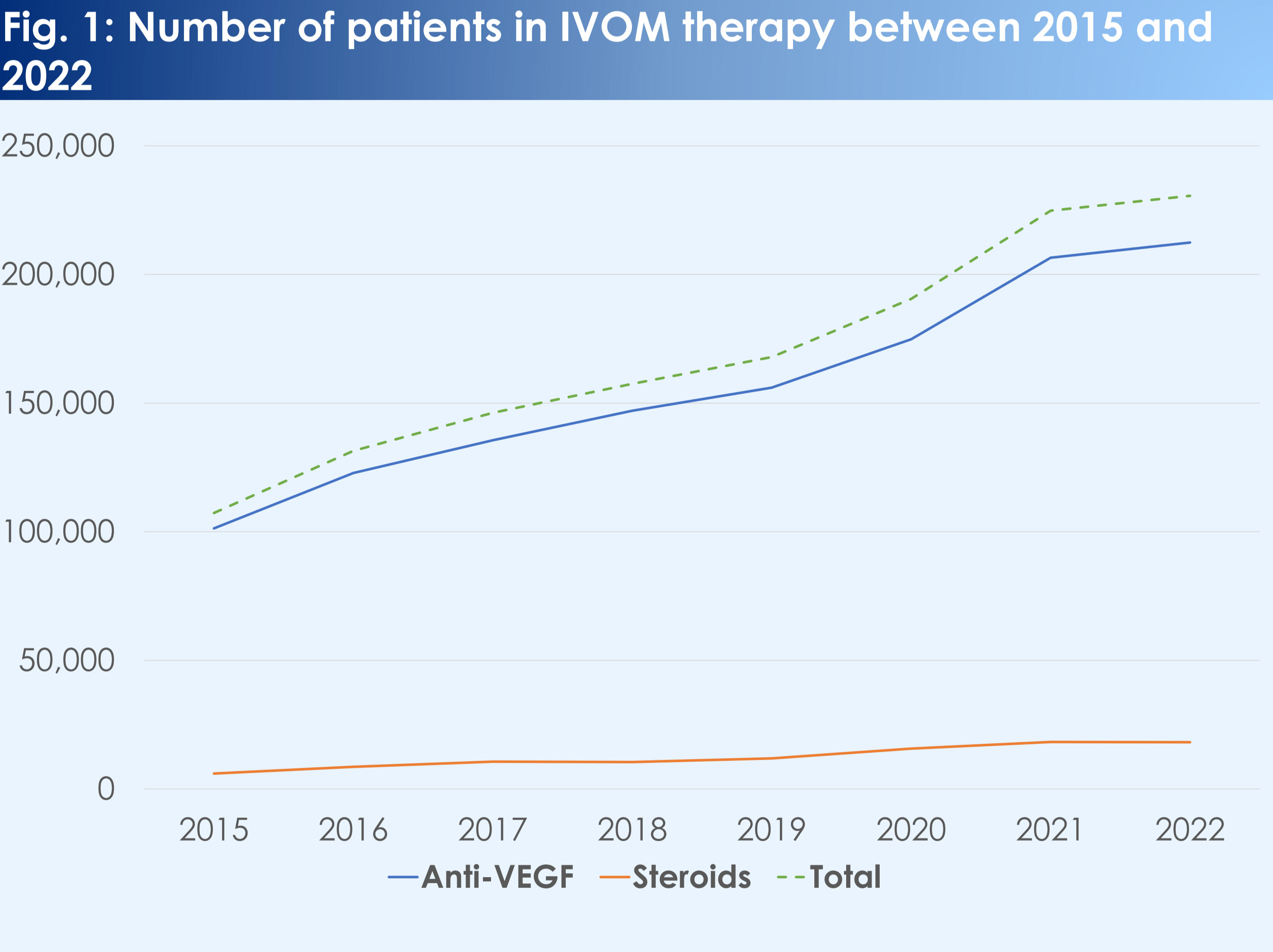
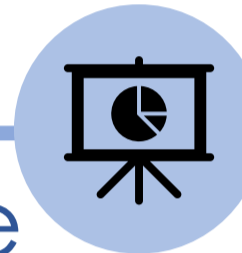
METHODS

- The prescription data from 2015 to 2022 is derived from the PharMaAnalyst database of the AOK's Scientific Institute (WIdO). This database contains information on about 95% of the drugs available on the market that are prescribed to the approximately 70 million people insured by the SHI in Germany.²
- To illustrate the costs, the results of a cost-benefit model were utilized. This model analyzes a period of three years and presents the costs associated with the respective medication prescriptions to provide a long-term economic perspective in IVOM therapy.^{3,4}



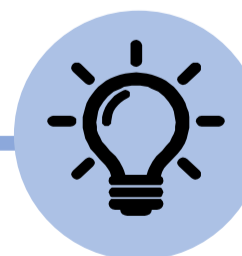
RESULTS

- From 2015 to 2022, there was an increase in patients with IVOM first-line therapy, which doubled during this period. The proportion of second-line within IVOM increased threefold in the same period (Fig. 1).
- In 2022, the average expenditure for SHI for patients undergoing IVOM therapy with anti-VEGF treatments was approximately €5,811.42 per patient. Meanwhile, the average costs for second-line therapy utilizing steroids for the same year was around €4,599.66 per patient (Fig. 2).
- In total, there were 212,418 patients receiving anti-VEGF therapy and 18,168 patients on steroid therapy. As a result, the overall expenditure for SHI in 2022 reached approximately €1.3 billion. This expenditure accounted for about 8% of the total spending in the ophthalmology sector.⁵



CONCLUSION

- Between 2015 and 2022, there was a notable increase in the use of second-line therapies in ophthalmology, indicating an increased need on alternative treatment options for patients who do not respond adequately to first-line treatments.
- At the same time, a decline in the number of practicing ophthalmologists is expected due to demographic changes. In 2023, around 30% of ophthalmologists working in outpatient care were over 60 years old.⁶ Due to the age structure of ophthalmologists and demographic change, it can be assumed that in future more patients need to be treated by less ophthalmologists
- In this context, sustainable and resource-saving IVOM therapy with long-lasting effectiveness could become more in focus in the future.



REFERENCES

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