

First market experiences' analysis of a novel Extended Depth Of Focus Toric lens

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Introduction

Worldwide population is ageing, with a **prevalence** of 30% in America and **40%** in Europe¹. **Presbyopia** has a significant impact on an individual's quality of life and emotional state². We spend more than half of our life being presbyopes.

Also, the prevalence of patients with **astigmatism** of $\geq 0,75D$ in at least one eye is **47%**³.

It is therefore very likely that **2 out of every 4 people coming to our practice are presbyope, and at least one has a significant amount of astigmatism.**

Additionally, presbyope's lifestyle is active, eating out and exercising regularly, being tech-savvy. Spectacle-wearing presbyopes **prefer contact lenses** as often as non-presbyopes⁴.

Purpose

To evaluate the objective and subjective **performance** of a novel Extended Depth of Focus (EDOF) toric contact lens, and to determine if fitting guidelines could be improved.

Methods

Before commercializing EDOF Toric contact lens, a multicenter prospective and longitudinal trial across different countries was carried out

25 centers across 4 countries (Spain, Italy, Germany and Holland) were enrolled and **69 contact lens wearers** were recruited.

Lenses were calculated from biometric data following the recommended fitting guide. Exchanges were made where necessary to optimize fitting and vision.

After one month of wear photopic mono and binocular high contrast visual acuity were measured at distance and near and a subjective survey of preferences completed by the wearers, including a relative analogue scale (RAS).

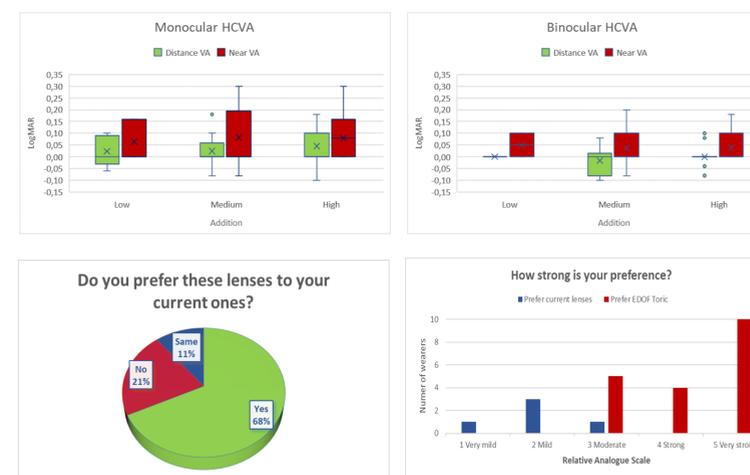
Materials

	Parameters (steps)
Diameter (mm)	13.50 a 15.50 (0.50)
Base Curve (mm)	7.10 a 9.80 (0,30)
Sphere (D)	± 18.00 (0.25)
Cylinder (D)	-0.75 to -8.00 (0.25)
Axes (°)	All (1)
Addition (D)	0.75; 1.50; 2.25

Material	SiHy
Classification	Filcon 5B (60) [75%]
Water Content	75%
Dk	60
Elasticity Modulus	0.33 Mpa
Cof	0.02
Replacement	Monthly
Handling tint	Blue
UV Filter	Class 1
Technology	EDOF
Central thickness	0.13 mm



Results & Discussion



Nº Exchanges	#	%
0	28	53%
1	21	40%
2	2	4%
3	1	2%
4	1	2%

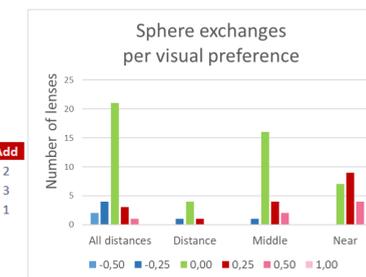
1 out of 2 fitted with 1st pair of lenses

93% finished within 2 visit

Very few needed more than 1 exchange

19% changes due to axes (2/10)

# Modifications	Sph	Cyl	Axes	BC	Diam	Add
2,25	10	3	9	4	2	2
1,50	11	3	4	10	7	3
0,75	1	0	1	1	1	1



30% of the sphere exchanges were +0.25D & +0.50D when visual preference at near and middle distances was high, with little impact in distance vision.

Conclusions

Fitting guide was optimized by adding +0,25D in both eyes when patients' visual demand at near and intermediate is high.

EDOF® Toric can be an appropriate solution for toric presbyopic patients.

References

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