SUMMARY OF SAFETY AND EFFECTIVENESS DATA (SSED)

I. GENERAL INFORMATION

Device Generic Name:	Phakic Intraocular Lens (PIOL) Phakic Toric Intraocular Lens (PIOL)
Device Trade Name:	EVO/EVO+ VISIAN Implantable Collamer® Lens (EVO ICL™) EVO/EVO+ VISIAN TORIC Implantable Collamer® Lens (EVO TICL™)
Device Procode:	MTA QCB
Applicant's Name and Address:	STAAR Surgical Company 1911 Walker Ave. Monrovia, CA 91016
Date(s) of Panel Recommendation:	None
Premarket Approval Application (PMA) Number:	P030016/S035
Date of FDA Notice of Approval:	3/25/2022

The original PMA P030016 for the Visian ICL was approved on December 22, 2005 and is indicated for patients 21-45 years of age:

- to correct myopia ranging from -3.0D to ≤ -15.0D with less than or equal to 2.5D of astigmatism at the spectacle plane;
- for the reduction of myopia in adults with myopia ranging from greater than 15.0D to -20.0D with less than or equal to 2.5D of astigmatism at the spectacle plane;
- with an anterior chamber depth (ACD) of 3.00 mm or greater, and a stable refractive history (within 0.5D for 1 year prior to implantation).

The SSED to support the indication is available on the CDRH website at https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfpma/pma.cfm?id=P030016 and is incorporated by reference here.

The current supplement was submitted to expand the indication for theVisian Implantable Collamer Lens for the treatment of myopia with and without astigmatism without the need for preoperative peripheral iridotomy.

II. INDICATIONS FOR USE

(EVO/EVO+ Sphere Lenses)

The EVO ICL lens is indicated for use in patients 21-45 years of age:

1. for the correction of myopia with spherical equivalent ranging from -3.0 D to ≤ -15.0 D with less than or equal to 2.5 D of astigmatism at the spectacle plane;
2. for the reduction of myopia ranging from greater than -15.0 D to -20.0 D with less than or equal to 2.5 D of astigmatism at the spectacle plane;
3. with an anterior chamber depth (ACD) of 3.00 mm or greater, when measured from the corneal endothelium to the anterior surface of the crystalline lens, and a stable refractive history (within 0.5 D for 1 year prior to implantation).
4. The ICL lens is intended for placement in the posterior chamber (ciliary sulcus) of the phakic eye.

(EVO/EVO+ Toric Lenses)

The EVO TICL lens is indicated for use in patients 21-45 years of age:

1. for the correction of myopic astigmatism with spherical equivalent ranging from -3.0 D to ≤ -15.0 D (in the spectacle plane) with cylinder (spectacle plane) of 1.0 D to 4.0 D.
2. for the reduction of myopic astigmatism with spherical equivalent ranging from greater than -15.0 D to -20.0 D (in the spectacle plane) with cylinder (spectacle plane) 1.0 D to 4.0 D.
3. with an anterior chamber depth (ACD) of 3.00 mm or greater, when measured from the corneal endothelium to the anterior surface of the crystalline lens and a stable refractive history (within 0.5 D for both spherical equivalent and cylinder for 1 year prior to implantation).
4. The TICL lens is intended for placement in the posterior chamber (ciliary sulcus) of the phakic eye.

III. CONTRAINDICATIONS

The EVO ICL family of lenses is contraindicated in patients:

1. with a true ACD of < 3.00 mm*;
2. with anterior chamber angle less than Grade III as determined by gonioscopic examination;
3. who are pregnant or nursing;
4. less than 21 years of age;

5. who have moderate to severe glaucoma;
6. who do not meet the minimum endothelial cell density (ECD).

Table 1: Minimum Endothelial Cell Density for Age and True ACD*

Age	Minimum ECD ACD ≥ 3.0mm	Minimum ECD ACD ≥ 3.2mm	Minimum ECD ACD ≥ 3.5mm
21-25	3875 cells/mm^2	3800 cells/mm^2	3250 cells/mm^2
26-30	3425 cells/mm^2	3375 cells/mm^2	2900 cells/mm^2
31-35	3025 cells/mm^2	2975 cells/mm^2	2625 cells/mm^2
36-40	2675 cells/mm^2	2625 cells/mm^2	2350 cells/mm^2
41-45	2350 cells/mm^2	2325 cells/mm^2	2100 cells/mm^2
>45	2075 cells/mm^2	2050 cells/mm^2	1900 cells/mm^2

*The true ACD is defined as the distance from the apex of the **posterior** corneal surface to the apex of the anterior crystalline lens surface. Many measuring devices provide an ACD measurement defined as the distance from the apex of the **anterior** corneal surface to the apex of the anterior crystalline lens surface. If the surgeon is using an instrument that measures from the anterior corneal surface, the thickness of the cornea must be subtracted to get the true ACD.

Table 1 indicates the minimum ECD per age group at time of implantation for three different ACD ranges. These data were developed as part of the STAAR ICL lens for Myopia Clinical Study (with the non-central port parent model ICL). This table was developed using rates of 2.47%, 2.44% and 2.15% (the upper 90% confidence interval of the average cell loss for eyes with the specified ACD) for the ≥ 3.0 mm, ≥ 3.2 mm and ≥ 3.5 mm groups, respectively. It sets minimum ECD criteria, as functions of age that should result in at least 1000 cells/mm^2 at 75 years of age. Specular microscopy should be performed preoperatively and ECD should be monitored postoperatively at intervals dictated by the physician's medical judgment.

IV. WARNINGS AND PRECAUTIONS

The warnings and precautions can be found in the EVO/EVO+Visian ICL and EVO/EVO+Visian TORIC ICL labeling.

V. DEVICE DESCRIPTION

The EVO/EVO+Visian® ICL®, EVO/EVO+Visian® TORIC ICL® (Implantable Collamer® Lens, EVO/EVO+ lenses) are intraocular implants manufactured from Collamer, a proprietary hydroxyethyl methacrylate (HEMA)/porcine collagen based biocompatible polymer material. These lenses contain a UV absorber made from a UV absorbing material. The lenses feature a plate-haptic design with a central convex/concave optical zone and incorporates a forward vault to minimize contact of the lens with the central anterior capsule.

While the parent devices (non-EVO/non-central port MICL [Visian ICL] and TMICL [toric Visian ICL]) require preoperative peripheral iridotomies (PIs) to facilitate aqueous flow, the EVO/EVO+ lenses represent another evolution in refractive treatment with STAAR's CentraFLOW™ technology. CentraFLOW is a central port (central hole) design that allows the flow of aqueous humor through the lens, eliminating the need for PIs prior to implantation.

The EVO/EVO+ spherical and toric lens powers are the same as the parent lenses (-3.0D to -16.0D for the spherical lens and -3.0D to -16.0D spherical equivalent with cylinder powers of -1.0D to -4.0D for the toric lens). The lenses feature an optic diameter that varies with the dioptric power; the smallest optic diameter being 4.9 mm and the largest 6.1 mm. The implantable lenses are capable of being folded and inserted into the posterior chamber through an incision of 3.5 mm or less. The EVO/EVO+ lenses have orientation markings on the haptic footplates to ensure the lenses are implanted in the correct orientation. When correctly oriented the orientation markings will be on the leading right/trailing left footplates. The EVO/EVO+ lenses are intended to be placed entirely within the posterior chamber (ciliary sulcus) directly behind the iris and in front of the anterior capsule of the human crystalline lens. When correctly positioned, the lenses function as a refractive element to optically reduce moderate to high myopia and myopic astigmatism (toric lens only).

The EVO/EVO+ Toric lenses are labeled using a plus cylinder axis format. The lens axis is labeled to the nearest degree and as such lenses of any axis between 1° to 180° may be held in inventory. The EVO/EVO+ Toric Lenses are designed to be rotated up to 22.5° clockwise or counterclockwise in order to align the lens axis at the preoperative plus cylinder axis. The lenses have two engraved lines, one on each side of the optic. These are to aid with the axis alignment of the lens. The markings indicate the meridian from which the cylinder axis is measured and do not indicate the cylinder axis of the lens. Refer to **Table 2** and **Table 3** for EVO/EVO+ spherical and toric lens specifications.

Table 2: EVO/EVO+ Sphere lenses

Brand Name	Model Name	Spherical Power (D)	Overall Diameter (mm)	Optic Diameter (mm)	Haptic Design
EVO	VICMO12.1	-3.0 to -16.0	12.1	4.9 to 5.8	Flat, plate
EVO	VICMO12.6	-3.0 to -16.0	12.6	4.9 to 5.8	Flat, plate
EVO	VICMO13.2	-3.0 to -16.0	13.2	4.9 to 5.8	Flat, plate
EVO	VICMO13.7	-3.0 to -16.0	13.7	4.9 to 5.8	Flat, plate
EVO+	VICM5 12.1	-3.0 to -16.0	12.1	5.0 to 6.1	Flat, plate
EVO+	VICM5 12.6	-3.0 to -16.0	12.6	5.0 to 6.1	Flat, plate
EVO+	VICM5 13.2	-3.0 to -16.0	13.2	5.0 to 6.1	Flat, plate
EVO+	VICM5 13.7	-3.0 to -16.0	13.7	5.0 to 6.1	Flat, plate

Table 3: EVO/EVO+ Toric lenses

Brand Name	Model Name	Spherical Equivalent (D)	Cylindrical Power (D)	Overall Diameter (mm)	Optic Diameter (mm)	Haptic Design
EVO	VTICMO 12.1	-3.0 to -16.0	+1.0 to +4.0	12.1	4.9 to 5.8	Flat, plate
EVO	VTICMO 12.6	-3.0 to -16.0	+1.0 to +4.0	12.6	4.9 to 5.8	Flat, plate
EVO	VTICMO 13.2	-3.0 to -16.0	+1.0 to +4.0	13.2	4.9 to 5.8	Flat, plate
EVO	VTICMO 13.7	-3.0 to -16.0	+1.0 to +4.0	13.7	4.9 to 5.8	Flat, plate
EVO+	VTICM5 12.1	-3.0 to -16.0	+1.0 to +4.0	12.1	5.0 to 6.1	Flat, plate
EVO+	VTICM5 12.6	-3.0 to -16.0	+1.0 to +4.0	12.6	5.0 to 6.1	Flat, plate
EVO+	VTICM5 13.2	-3.0 to -16.0	+1.0 to +4.0	13.2	5.0 to 6.1	Flat, plate
EVO+	VTICM5 13.7	-3.0 to -16.0	+1.0 to +4.0	13.7	5.0 to 6.1	Flat, plate

VI. ALTERNATIVE PRACTICES AND PROCEDURES

There are several other alternatives for the correction of myopia and myopic astigmatism in phakic eyes. Non-surgical options include eye glasses and contact lenses. Surgical options include laser in situ keratomileusis (LASIK), automated lamellar keratoplasty (ALK), radial keratotomy (RK), photorefractive keratectomy (PRK), Phakic intraocular lens (IOL) implantation (EVO ICL lenses are phakic IOLs but other types of phakic IOLs are also available), and Small Incision Lenticule Extraction (SMILE). Each alternative has its own advantages and disadvantages. A patient should fully discuss these alternatives with his/her physician to select the method that best meets expectations and lifestyle.

VII. MARKETING HISTORY

The EVO lens has been commercially available since 2011, and the EVO+ since 2016 in the EU. Both EVO and EVO+ lenses are marketed in over 75 countries including in the following regions: EU and EFTA, Latin America, Asia Pacific, North America, and the Middle East. The EVO/EVO+ lenses have not been withdrawn from any market for any reason relating to the safety and effectiveness of the device.

VIII. POTENTIAL ADVERSE EFFECTS OF THE DEVICE ON HEALTH

Below is a list of the potential adverse effects (e.g., complications) associated with the use of the device. Specific risks of the EVO/EVO+ Implantable Lenses include anterior subcapsular opacities/cataract, narrowing of the anterior chamber angle, pupillary block, increased intraocular pressure (IOP), glaucoma, EVO lens malpositioning, corneal endothelial cell loss (which may result in corneal edema), secondary surgical

intervention, loss of best spectacle-corrected visual acuity, increase in refractive astigmatism, pigment dispersion and iris transillumination defects.

Potential adverse events for all cataract or implant surgery may include but are not limited to infection (endophthalmitis), hypopyon, corneal endothelial damage, IOL dislocation out of the posterior chamber, cystoid macular edema, corneal edema, pupillary block, iritis, retinal detachment, retinal tears, transient or persistent glaucoma, vitritis, iris prolapse, rupture of the capsule, and secondary surgical intervention. Increased visual symptoms related to the optical characteristics of the IOL include halos, glare and/or double vision.

Secondary surgical interventions include, but are not limited to lens repositioning, lens replacement, lens removal, iridotomy or iridectomy for pupillary block, wound leak repair, retinal detachment repair and corneal transplantation.

For the specific adverse events that occurred in the clinical study please see **Section X** below.

IX. SUMMARY OF NONCLINICAL STUDIES

The EVO/EVO+ ICL material is the same as the Collamer material used for the parent Visian ICL. The material testing was conducted in accordance with the applicable ISO 10993 series and the ISO 11979 series of standards and other standards as listed.

Since the EVO/EVO+ ICL is made with the same Collamer material as the parent lens, existing non-clinical testing performed for the Visian ICL remains applicable. These tests are provided in the SSED for PMA P030016.

A. Laboratory Studies

Nonclinical optical and mechanical tests were conducted on the ICL family of lenses in accordance with ISO 11979-2 Ophthalmic Implants – Intraocular Lenses – Part 2: Optical Properties and Test Methods and ISO 11979-3 Ophthalmic Implants – Intraocular Lenses – Part 3: Mechanical Properties and Test Methods. These results were reported in the Summary of Safety and Effectiveness Data (SSED) for PMA P030016.

The optical and mechanical attributes that could be affected by the modifications incorporated into the new spherical and toric EVO/EVO+ models were tested as described in Table 4.

Table 4: Optical/ Mechanical Laboratory Studies

Test	Purpose	Acceptance Criteria	Results
Spherical Power	To determine if the device meets the optical requirements for spherical power tolerance	As described in ISO 11979-2, Clause 4	Pass
Cylinder Power	To determine if the toric version of the device meets the optical requirements for cylinder power tolerance	As described in ISO 11979-2, Clause 4	Pass
Axis	To determine if the toric version of the device meets the requirements for cylinder axis	As described in ISO 11979-2, Clause 4	Pass
Image Quality	To determine if the device meets the optical requirements for image quality	As described in ISO 11979-2, Clause 4	Pass
Optical Decentration	To determine if the device meets the requirements for optic decentration	As described in ISO 11979-3, Clause 4	Pass
Optical Tilt	To determine if the device meets the requirements for optic tilt	As described in ISO 11979-3, Clause 4	Pass
Recovery of Properties following Simulated Surgical Manipulation	To determine if the device returns to optical, dimensional and cosmetic specifications after simulated surgical manipulation	As described in ISO 11979-3, Clause 5	Pass

B. Animal Studies

The Biocompatibility studies were reported in the Summary of Safety and Effectiveness Data (SSED) for PMA P030016.

C. Additional Studies

On-line ICL Calculator software was verified to function as intended as described in FDA Guidance "General Principles of Software Validation" and reported in the Summary of Safety and Effectiveness Data (SSED) for PMA P030016 and PMA P030016/S001.

X. SUMMARY OF PRIMARY CLINICAL STUDY

The applicant performed a clinical study to establish reasonable assurance of safety and effectiveness of implantation in the ciliary sulcus of the eye with STAAR Surgical's EVO/EVO+ ICL for the correction of myopia with and without astigmatism in patients in the US under IDE # G190184. Data from this clinical study were the basis for the PMA approval decision. A summary of the EVO/EVO+ ICL clinical study is presented below.

A. Study Design

Patients were treated (implanted) between January 2020 and December 2020. The datebase for this Panel Track Supplement reflected data collected through April 8, 2021 and included 327 patients. There were 14 investigtional sites.

The study was a multicenter prospective single-arm study to evaluate the safety, and to collect supportive data concerning the effectiveness of the EVO/EVO+ Visian Implantable Collamer Lens (EVO ICL). Up to 333 patients and 333 primary eyes and up to an additional 333 fellow eyes were permitted to be enrolled. Study subjects with moderate-to high myopia ranging from -3.00 to -20.00D spherical equivalent (SE) in the spectacle plane or moderate to high myopic astigmatism with SE ranging from -3.00 to -20.00D (in the spectacle plane) and cylinder ranging from 1.00D to 4.00D of cylinder (in the spectacle plane), with preoperative best spectacle corrected visual acuity (CDVA) of 20/40 or better and no pre-existing progressive sight-threatening ocular disorders other than pathological refractive error were eligible for the study. The design of the EVO/EVO+ ICL is nearly identical to that of the currently approved Visian MICL and TICL with the exception of the central port. The central port is designed to facilitate

aqueous flow and eliminate the need for preoperative PIs. Therefore, the study was intended to to evaluate the safety, and to collect supportive data concerning the effectiveness of the EVO/EVO+ Visian Implantable Collamer Lens (EVO ICL). The statistical plan was based upon an analysis at 6-month post-operative visit of the endpoints and was used to support this PMA Supplement. The analysis for PMA P030016/S035 included 303 primary eyes and 266 fellow eyes (569 total eyes) that completed the Month 6 visit (Day 147 – 182). An update of safety analyses was provided to FDA after all remaining treated eyes completed the Month 6 visit.

Subjects were examined for eligibility at the Preoperative Visit. Eligible subjects had surgery to implant study lenses in one eye at the operative visit (Day 0). For subjects who qualified to participate bilaterally, fellow eye implantation was to occur between 7 and 14 days after uneventful surgery in the first eye. Postoperatively, subjects are to return for 8 visits (per eye) at regularly scheduled intervals through 3 years. Assessments performed postoperatively are uncorrected distance visual acuity (UDVA), corrected distance visual acuity (CDVA), manifest refraction, gonioscopy, slit lamp examination, crystalline lens status, specular microscopy (corneal endothelial cell count), intraocular pressure (IOP), dilated fundus examination, optical coherence tomography (OCT; lens vault), and adverse events (AEs).

1. Clinical Inclusion and Exclusion Criteria

Enrollment in the EVO/EVO+ICL study was limited to patients (eyes) who met the following inclusion criteria.

- 21 through 45 years old at time of surgery
- For EVO MICL lenses:
  - Moderate-to-high myopia ranging from -3.00D to ≤ -20.0D SE in the spectacle plane with ≤ 2.50D of astigmatism (in the spectacle plane)

  For EVO TICL lenses:
  - Moderate-to-high myopic astigmatism with SE ranging from -3.00D to ≤ -20.00D (in the spectacle plane) and cylinder ranging from 1.00D to 4.00D (in the spectacle plane)
- Stable refractive history within 0.50D cylinder for 1 year prior to implantation as determined by the Investigator
- Stable refractive history within 0.50D for SE 1 year prior to implantation as determined by the Investigator
- For a subject who was expected to have residual postoperative cylindrical refractive error of ≥ 1D (as determined by STAAR OCOS [online calculation and ordering system]), the subject was to be given the opportunity to experience his/her vision with the anticipated correction

- Anterior chamber depth (ACD) ≥ 3.00 mm, when measured from the corneal endothelium to the anterior surface of the crystalline lens
- Met minimum endothelial cell density (ECD) requirements for age and ACD (as defined in **Table 1** (Minimum ECD for Age and True ACD)
- Corrected distance visual acuity to at least 20/40 in the eye(s) to be treated; and absent of ocular pathology (except that myopic degeneration was allowed)
- Difference between cycloplegic refraction spherical equivalent and manifest refraction spherical equivalent (MRSE) of < 0.75D
- For current contact lens wearers, stable MRSE (within ± 0.5D) on 2 consecutive examination dates with stability of the refraction determined by the following criteria:
  - Discontinuation of contact lens use for at least 2 weeks (rigid contact lenses and all toric contact lenses) or 3 days (non-toric soft contact lenses) prior to the first refraction
  - Two refractions performed at least 7 days apart
- Able and willing to return for scheduled follow-up examinations after surgery
- Able to read, understand, and provide written informed consent on the IRB-approved ICF and provide authorization as appropriate for local privacy regulations

Patients were <u>not</u> permitted to enroll in the EVO/EVO+ ICL study if they met any of the following exclusion criteria:

- Anterior chamber angle (ACA) < Grade III as determined by gonioscopic examination
- Coefficient of variation of endothelial cell area of > 0.45
- Percent hexagonality of endothelial cell shape ≤ 45%
- Unstable or worsening nearsightedness
- Ocular hypertension or glaucoma
- Pseudoexfoliation
- Pigment dispersion
- History or clinical signs of iritis/uveitis
- Insulin-dependent diabetes or diabetic retinopathy
- History of previous ocular surgery
- Cataract of any grade
- Progressive sight-threatening disease or other previous or current ocular conditions, other than myopia or myopic degeneration, which may predispose for future complication in either eye
- Serious acute, chronic, or systemic, non-ophthalmic disease or illness that would increase the operative risk, confound the outcome(s) of the study, or which could

preclude study completion (e.g., immunocompromised, connective tissue disease, clinically significant atopic disease, uncontrolled diabetes, etc.)

- Monocular subjects
- Pregnant or nursing women, or those who planned to become pregnant over the course of this clinical study or had another condition with associated fluctuation of hormones that could lead to refractive changes
- Involved in another clinical study or who may have been involved in a different clinical study within 30 days prior to this clinical study or would be involved in a different clinical study while participating in this study
- Subjects who, in the judgment of the Investigator, presented any emotional, physiologic, or anatomical condition which could preclude participation in this study or provide an inappropriate landscape for the intended study treatment

2. Follow-up Schedule

All patients were scheduled to return for follow-up examinations as follows: 1 day (Visit 1), 5 – 9 days (Visit 2), 21 –35 days (Visit 3), 70 –98 days (Visit 4), 147 –182 days, (Visit 5), 330 –420 days (Visit 6), 690 –810 days (Visit 7), and 1050 –1170 days (Visit 8) postoperatively for each eye implanted.

The Preoperative Visit was to occur -120 to -1 day of the operative visit. During this visit, Demographics/Medical and Ocular History, UDVA, CDVA, Manifest Refraction, Keratometry, Gonioscopy, Slit Lamp Examination, Crystalline Lens Status, Specular Microscopy, Axial Length (AL), ACD, Corneal White-to-White Distance (WTW), pupil size, corneal topography, IOP, Dilated Fundus Exam, and Cycloplegic Refraction were performed.

Postoperatively, the objective parameters measured during the study included the following: all visits: UDVA , slit lamp exam, IOP, concomitant medications and AEs; visit 2 and later: CDVA, Manifest Refraction; visit 3 and later: Crystalline Lens Status, lens vault; visit 3, 6, 7, and 8: Dilated Fundus Exam; visit 5 and later: Gonioscopy and Specular Microscopy.

The key timepoints are shown below in the tables summarizing safety and effectiveness.

3. Clinical Endpoints

With regards to safety,

The primary safety endpoints were:

- Incidence of PI required to treat elevated IOP caused by mechanical pupillary block through Month 6 Visit.
- Distribution of percent ECD losses and the percent of eyes that had ECD <1500 cells/mm^2 and ECD < 1000 cells/mm^2 through Month 6 visit (no prespecified performace target)
- Incidence of AEs through Month 6 Visit (no prespecified performance target)

Analysis of the primary endpoints was performed after a minimum of 300 primary eyes completed the Month 6 Visit (Day 147 – 182).

The secondary safety endpoints were:

- Incidence of PI required to treat elevated IOP caused by mechanical pupillary block through Month 6 Visit
- Distribution of percent ECD losses and the percent of eyes that had ECD <1500 cells/mm^2 and ECD <1000 cells/mm^2 through Month 6 Visit
- Incidence of AEs through Month 6 Visit

Analysis of the secondary endpoints was performed on all eyes and have no prespecified performance targets.

With regards to effectiveness,

- MRSE within ±1.00D of target at Month 6 Visit
- MRSE within ±0.50D of target at Month 6 Visit
- UDVA of 20/40 or better at Month 6 Visit (for those eyes with CDVA 20/20 or better at Preoperative/Screening Visit)
- CDVA through Year 3 Visit (Day 1050 – 1170)

Analysis of endpoints was performed on all eyes and have no prespecified performance targets.

With regard to success/failure criteria, the following were specified for some of primary safety endpoints:

- Maximum number secondary PI to treated elevated IOP caused by mechanical pupillary block shall not exceed 3.
- Rates of AEs to be similar to rates observed in clinical trials for MICL and TICL parent lenses

B. Accountability of PMA Cohort

At the time of database lock, of 327 patients enrolled in the PMA study, 92.7% (303) patients are available for analysis at the completion of the study, the 6-month post-operative visit. One subject has been discontinued from the study. An EVO+ Toric lens was explanted from the primary eye approximately 1 month after implantation due to subject complaints of glare and halos. The fellow eye was not implanted. Following explantation, the AE of glare and halos resolved, and the subject demonstrated full recovery prior to exit from the study.

Table 5 provides accountability for primary eyes and **Table 6** provides accountability for all eyes treated in the study.

Table 5: Accountability – Primary Eyes

Eye Status	Total #	Op Visit (Day 0) n (%[5])	Postop V1 (Day 1) n (%[5])	Postop V2 (Day 5-9) n (%[5])	Postop V3 (Day 21-35) n (%[5])	Postop V4 (Day 70-98) n (%[5])	Postop V5 (Day 147-182) n (%[5])	Postop V6 (Day 330-420) n (%[5])
All eyes treated **(N)**	327							
Available for analysis		327 (100.0)	327 (100.0)	325 (99.4)	325 (99.4)	324 (99.1)	321 (98.2)	42 (12.8)
Missing eye/data								
Discontinued		0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.3)	1 (0.3)	1 (0.3)
Missing at scheduled visit but seen earlier/later[1]		0 (0.0)	0 (0.0)	0 (0.0)	9 (2.8)	2 (0.6)	7 (2.1)	1 (0.3)
Missing but accounted for[2]		0 (0.0)	0 (0.0)	2 (0.6)	2 (0.6)	1 (0.3)	3 (0.9)	12 (3.7)
Lost to follow-up		0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.3)	2 (0.6)	2 (0.6)
Active[3]		0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	270 (82.6)
% Accountability[4]		327/327 (100.0)	327/327 (100.0)	325/327 (99.4)	325/327 (99.4)	324/326 (99.4)	321/326 (98.5)	42/56 (75.0)

[1] Missing at scheduled visit but seen earlier/later: represents the total number of eyes that were seen outside the time window associated with the visit.

[2] Missing but accounted for: represents the total number of eyes that missed the visit but have not been discontinued/lost to follow-up.

[3] Active: represents the total number of eyes that have not reached the time associated with the visit. The investigation at the visit is considered complete when the number of active eyes is zero.

[4] % Accountability = [Available for Analysis/(Treated-Discontinued-Active)].

[5] The denominator for percentages is the number of treated eyes. Percentage calculated as (n/N)*100.

Table 6: Accountability – All Eyes

Eye Status	Total #	Op Visit (Day 0) n (%)	Postop V1 (Day 1) n (%)	Postop V2 (Day 5-9) n (%)	Postop V3 (Day 21-35) n (%)	Postop V4 (Day 70-98) n (%)	Postop V5 (Day 147-182) n (%)	Postop V6 (Day 330-420) n (%)
All eyes treated **(N)**	629							
Available for analysis		629 (100.0)	628 (99.8)	624 (99.2)	626 (99.5)	624 (99.2)	619 (98.4)	81 (12.9)
Missing eye/data								
Discontinued		0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.2)	1 (0.2)	1 (0.2)
Missing at scheduled visit but seen earlier/later[1]		0 (0.0)	0 (0.0)	1 (0.2)	16 (2.5)	2 (0.3)	13 (2.1)	1 (0.2)
Missing but accounted for[2]		0 (0.0)	1 (0.2)	5 (0.8)	3 (0.5)	2 (0.3)	5 (0.8)	0 (0.0)
Lost to follow-up		0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (0.3)	4 (0.6)	4 (0.6)
Active[3]		0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	543 (86.3)
% Accountability[4]		629/629 (100.0)	628/629 (99.8)	624/629 (99.2)	626/629 (99.5)	624/628 (99.4)	619/628 (98.6)	81/85 (95.3)

[1] Missing at scheduled visit but seen earlier/later: represents the total number of eyes that were seen outside the time window associated with the visit.

[2] Missing but accounted for: represents the total number of eyes that missed the visit but have not been discontinued/lost to follow-up.

[3] Active: represents the total number of eyes that have not reached the time associated with the visit. The investigation at the visit is considered complete when the number of active eyes is zero.

[4] % Accountability = [Available for Analysis/(Treated-Discontinued-Active)].

The denominator for percentages is the number of treated eyes. Percentage calculated as (n/N)*100.

C. Study Population Demographics and Baseline Parameters

The demographics of the study population are typical for a prospective, open-label, multicenter study of contemporary refractive surgery trials performed in the US.

Clinical study subject demographics for the 629 eyes from 327 subjects implanted in the EVO/EVO+ ICL Study primary and fellow eyes are summarized in **Table 7**. The demographics of the study population are typical for a study performed in the US for this type of refractive surgery.

The mean preoperative manifest refraction sphere for the EVO/EVO+ ICL Study primary and fellow eyes was moderately myopic at -7.14D (range -1.75D to -14.75D) and -7.11D (range -2.00D to -15.00D), respectively. The mean preoperative manifest refraction cylinder of primary and fellow eyes was -1.13 (range -0.25D to -4.00D) and -1.15D (range -0.25D to -4.00D), respectively. The mean preoperative MRSE for the EVO/EVO+ ICL Study primary and fellow eyes was moderately myopic at -7.63D (range of -3.00D to -15.62D) and -7.61D (range -3.00D to -15.25D) respectively. See **Table 8** for Baseline Characteristics.

The mean (SD) ICL sphere power implanted in primary and fellow eyes was -8.33 (2.88) D and -8.28 (2.86) D, respectively. The mean (SD) cylinder of EVO Toric ICL lenses implanted in primary and fellow eyes was -1.79 (0.87) D and -1.82 (0.88) D, respectively. The mean (SD) target postoperative SE for primary and fellow implanted eyes was -0.07 (0.19) and -0.08 (0.19), respectively. All available lengths of EVO ICL lenses were implanted in the study.

Table 7: Demographics

Demographics	**Subjects (N=327)** n (%*)
Gender	
Male	114 (34.9)
Female	213 (65.1)
Race	
Caucasian	274 (83.8)
African American/Black	11 (3.4)
Asian	38 (11.6)
Native Hawaiian or Other Pacific Islander	3 (0.9)
American Indian or Alaska Native	1 (0.3)
Ethnicity	
Hispanic or Latino	34 (10.4)
Not Hispanic or Latino	293 (89.6)
Age (years)	
Mean (SD)	35.6 (5.1)
Median	36.0
Min, Max	22, 45

*Percentage calculated as (n/N)*100.

Table 8: Preoperative Manifest Refraction

Preoperative Manifest Refraction	Primary Eyes (N=327)	Fellow Eyes (N=302)
Sphere (D)		
N	327	302
Mean (SD)	-7.14 (2.76)	-7.11 (2.73)
Median	-6.75	-6.75
Min, Max	-14.75, -1.75	-15.00, -2.00
Cylinder[1] (D)		
N	286	261
Mean (SD)	-1.13 (0.89)	-1.15 (0.90)
Median	-0.75	-1.00
Min, Max	-4.00, -0.25	-4.00, -0.25
Axis (1-180^{O})		
N	286	261
Mean (SD)	93.3 (64.1)	99.7 (62.5)
Median	94.5	97.0
Min, Max	1, 180	1, 180
Spherical Equivalent (D)		
N	327	302
Mean (SD)	-7.63 (2.80)	-7.61 (2.72)
Median	-7.38	-7.44
Min, Max	-15.62, -3.00	-15.25, -3.00

[1]All cylinder measurements are reported in the negative scale, subjects with a reported cylinder value of 0 are not included in summary statistics for cylinder or axis.

D. Safety and Effectiveness Results

The analysis of safety was performed on all treated eyes. The key safety outcomes for this study are presented below in **Table 9** to **Table 20**. Adverse effects are reported in **Table 13** to **Table 15** and **Table 18.**

The analysis of effectiveness was based on the 303 primary (569 total eyes) eyes that completed the Month 6 visit and included in the analysis. The effectiveness outcomes are presented in **Table 21** through **Table 25**.

The parent lens that underwent a pivotal clinical trial was the MICL (non-central hole model) approved under PMA P030016; the parent toric lens (non-central hole model TICL) that underwent a pivotal clinical trial was approved under PMA P030016/S001. FDA concluded that the safety data from these prior clinical studies are applicable to EVO/EVO+

Sphere and Toric ICLs. Please see the SSED for PMA P030016, and the SSED for PMA P030016/S001 for the clinical data.

1. **Safety Results**

The analysis of safety was based on the EVO/EVO+ ICL study cohort of 629 primary and fellow eyes available for the 6-month evaluation. The key safety outcomes for this study are presented below in **Table 9** to **Table 20**. Adverse effects are reported in **Table 13** to **Table 15** and **Table 18.**

Adverse effects that occurred in the PMA clinical study:

a. Primary Safety Endpoints

The primary endpoints were evaluated on 327 primary eyes.

i. Incidence of PI Required to Treat Elevated IOP Caused by Mechanical Pupillary Block through Month 6 in Primary Eyes

Table 9 demonstrates that no primary eyes in the study required a PI to treat elevated IOP caused by mechanical pupillary block through Month 6.

Table 9: Incidence of PI Required to Treat Elevated IOP Caused by Mechanical Pupillary Block through Month 6 – Primary Eyes (N=327)

PI to Treat Elevated IOP - Cumulative	Eyes n (%*)	No. Events
Required PI to treat elevated IOP	0 (0.0%)	0

*Percentage calculated as (n/N)*100.

ii. ECD Losses through Month 6 in Primary Eyes

An additional primary endpoint for the study is the distribution of percent ECD losses and the percent of eyes that have ECD <1500 and ECD <1000 through Month 6 in primary eyes. There are no prespecified performance targets for analysis of this endpoint. **Table 10** demonstrates a mean ECD loss (SD) from baseline of 2.4% (4.3%) in primary eyes at Month 6. The range of change in ECD from baseline was +6.3% to -46.7%, with 98.0% (314/321) of primary eyes experiencing ≤ 10% loss from preoperative values.

ECD loss > 30% from baseline was reported for two (2/321, 0.6%) primary eyes at the Month 6 visit in this study. In both cases, the decrease in ECD was

attributed by the Investigator to the surgical procedure and not to the study device.

No instances (0/619, 0.0%) of ECD <1500 or <1000 cells/mm^2 through Month 6 have been reported for any eye in this study.

Table 10: ECD Change from Baseline Through Month 6 – Primary Eyes

Parameter	**Month 6 PO Visit 5** (N=321*)	
% ECD Change from Baseline	**Value**	**95% CI**
N - Missing	319	-
Mean (SD)	-2.4 (4.3)	-2.860, -1.922
Median	-1.8	-
Min, Max	-46.7, 6.3	
Distribution of % ECD Change from Baseline	n (%[1])	95% CI
Gain > 5%	2 (0.6)	0.08, 2.23
Gain ≥ 2% to ≤ 5%	9 (2.8)	1.29, 5.26
Gain < 2% to Loss < 2%	161 (50.2)	44.55, 55.76
Loss ≥ 2% to ≤ 5%	101 (31.5)	26.42, 36.85
Loss > 5% to ≤ 10%	41 (12.8)	9.32, 16.93
Loss > 10% to ≤ 20%	3 (0.9)	0.19, 2.71
Loss > 20% to ≤ 30%	0 (0.0)	0.00, 1.14
Loss > 30%	2 (0.6)	0.08, 2.23
Missing	2	-
ECD less than 1500 (n, %[1])	0 (0.0)	0.00, 1.14
ECD less than 1000 (n, %[1])	0 (0.0)	0.00, 1.14

*N is the number of eyes present at both the Preoperative and Month 6 Visits
[1]Percentage calculated as (n/N)*100.

iii. Incidence of Adverse Events through Month 6 Visit in Primary Eyes

See the section on AEs in all implanted eyes for details (Section biii, below).

b. Secondary Safety Endpoints

Secondary endpoints were evaluated in all eyes (primary and fellow eyes) and compared to the PMA data for the approved and currently marketed non-central port MICL and TICL devices, where appropriate. The secondary endpoints have no prespecified performance targets.

i. Incidence of PI Required to Treat Elevated IOP Caused by Mechanical Pupillary Block through Month 6 in All Eyes

The results of analysis of the first secondary endpoint are presented in **Table 11.** No treated eyes (0.0%, 0/629) in the study have required a PI to treat elevated IOP caused by mechanical pupillary block through the Month 6 visit. This is lower than the rates of 3.2% (17/526 eyes) and 0.5% (1/210 eyes) observed in the PMA studies of the MICL and TICL parent devices, respectively.

Table 11: Incidence of PI Required to Treat Elevated IOP Caused by Mechanical Pupillary Block – All Eyes (N=629)

PI to Treat Elevated IOP - Cumulative	Eyes n (%*)	No. Events
Required PI to treat elevated IOP	0 (0.0%)	0

*Percentage calculated as (n/N)*100.

ii. ECD Losses at Month 6 in All Eyes

An additional secondary endpoint for the study is the distribution of percent ECD losses and the percent of eyes that have ECD <1500 and ECD <1000 at Month 6 in all eyes. There is no prespecified performance target for analysis of this endpoint.

Table 12 demonstrates ECD change at Month 6. The mean (SD) ECD loss from baseline for all eyes at Month 6 visit was 2.3% (4.0%). The range of change in ECD from baseline was +6.3% to -46.7%, with 97.3% (602/619) of all eyes experiencing ≤ 10% ECD loss from preoperative values. ECD loss > 30% from baseline was reported for one fellow eye at Month 6. Similar to the causality attributed for the 2 primary eyes that experienced > 30% ECD loss, the Investigator attributed this loss to the surgical procedure and not to the study device. No instances (0/629, 0.0%) of ECD <1500 or <1000 cells/mm^2 through Month 6 have been reported for any eye in this study

Table 12: ECD Change From Baseline through Month 6 – All Eyes

Parameter	Month 6 Visit (N=619*)	
% ECD change from baseline	**Value**	**95% CI**
N - missing	614	-
Mean (SD)	-2.26 (4.01)	-2.576, -1.941
Median	-1.68	-
Minimum, maximum	-46.7, 6.3	-
Distribution of % ECD change from baseline	**n (%[1])**	**95% CI**
Gain >5%	2 (0.3)	0.04, 1.16
Gain ≥2% to ≤5%	22 (3.6)	2.24, 5.33
Gain <2% to loss <2%	320 (51.7)	47.68, 55.70
Loss ≥2% to ≤5%	190 (30.7)	27.08, 34.49
Loss >5% to ≤10%	68 (11.0)	8.63, 13.72
Loss >10% to ≤20%	8 (1.3)	0.56, 2.53
Loss >20% to ≤30%	1 (0.2)	0.00, 0.90
Loss >30%	3 (0.5)	0.10, 1.41
Missing	5	-
ECD <1500 cells/mm^2	0 (0.0)	0.00, 0.59
ECD <1000 cells/mm^2	0 (0.0)	0.00, 0.59

*N is the number of eyes present at both the Preoperative and Month 6 Visits
[1]Percentage calculated as (n/N)*100.

iii. Incidence of Adverse Events through Month 6 Visit in All Eyes

Adverse Event Reporting Requirements in PMA Clinical Study

All ocular AEs (only eyes implanted with study lenses) and all serious AEs (both ocular and nonocular) were to be reported in this study. Non-serious non-ocular AEs were not reported.

Experience with intraocular surgery and the implantation of IOLs has shown that some events can be considered normal or expected after these procedures. Early, low grade anterior chamber cell/flare, corneal edema, and increase in IOP can often be considered normal or expected after phakic IOL surgery and were not to be reported as AEs if they were prior to 1 week postoperatively and if they met the following criteria:

- AC cells or flare of ≤ grade 2 (using the SUN [standardization of uveitis nomenclature] criteria) that require no change in standard postoperative medication regimen

- Corneal edema of ≤ grade 2 that does not reduce CDVA to 20/40 or worse and does not require any change in standard postoperative medication regimen
- Increased IOP that is <10 mmHg above baseline or is <25 mmHg and requires no change in standard postoperative medication regimen or any other special treatment
- Loss of CDVA ≥10 letters up to 1 week postoperatively

All other untoward events that occur during the study, and all events that have sequelae are to be reported as AEs, regardless of when they occur.

Adverse Events Reported in the PMA clinical study

A total of 36.7% (120/327) of all treated subjects experienced any AE on the study. This total includes one non-ocular SAE of hospitalization. An additional non-ocular SAE was reported for a non-enrolled (not treated) subject who experienced a cerebral infarction during the preoperative screening period. No deaths or unanticipated adverse device effects (UADEs) have been reported in the EVO/EVO+ ICL Study. The remaining AEs reported in the study were ocular and are presented in this section.

A total of 108 ocular AEs were reported for 27.5% (90/327) of primary eyes and a total of 203 ocular AEs were reported for 25.8% (162/629) of all eyes in the safety update to FDA (**Table 13**). All Ocular AEs that have occurred during this clinical trial to date were previously anticipated in nature, severity and frequency based on prior clinical studies of the MICL and TICL as well as the published literature regarding EVO ICL lens models and refractive surgery.

Table 13: Cumulative Ocular AEs

Cumulative Ocular AEs	Primary Eyes (N=327)		All Eyes (N=629)	
	Eyes[1] n (%)[2]	Events n	Eyes[1] n (%)[2]	Events n
Eyes experienced any ocular AE	90 (27.5)	108	162 (25.8)	203
Intraocular pressure increased[3]	75 (22.9)	77	136 (21.6)	143
Anterior chamber cell/flare[4]	7 (2.1)	7	11 (1.7)	11
Corneal epithelial defect	3 (0.9)	3	6 (1.0)	6
Narrow anterior chamber angle[5]	2 (0.6)	3	2 (0.3)	3
Corneal endothelial cell loss[6]	2 (0.6)	2	4 (0.6)	4
Dry eye	2 (0.6)	2	4 (0.6)	4
Intraocular lens exchange	2 (0.6)	2	2 (0.3)	2
Intraocular lens repositioning	2 (0.6)	2	3 (0.5)	3
Retinal surgery	1 (0.3)	1	3 (0.5)	7
Retinal detachment[7]	1 (0.3)	1	3 (0.5)	3
Glaucoma	1 (0.3)	1	2 (0.3)	2
Contact dermatitis	1 (0.3)	1	2 (0.3)	2
Intraocular lens removal	1 (0.3)	1	1 (0.2)	1
Cataract nuclear	1 (0.3)	1	1 (0.2)	1
Glare/Halo[8]	1 (0.3)	1	1 (0.2)	1
Hordeolum	1 (0.3)	1	1 (0.2)	1
Iris incarceration	1 (0.3)	1	1 (0.2)	1
Visual acuity reduced[9]	1 (0.3)	1	1 (0.2)	1
Retinal tear	0 (0.0)	0	1 (0.2)	2
Vitreous detachment	0 (0.0)	0	2 (0.3)	2
Astigmatism[10]	0 (0.0)	0	1 (0.2)	1
Eye discharge	0 (0.0)	0	1 (0.2)	1
Punctate keratitis	0 (0.0)	0	1 (0.2)	1

[1] Percentage calculated as (n/N)*100.

[2]Only the first incidence of an event is counted for any given eye.

[3]IOP ≥10 mmHg above baseline to a minimum of 25 mmHg or that required a change in the standard postoperative medication regimen or other special treatment was reported as an AE.

[4]Anterior chamber cell/flare was reported as an AE if it met criteria for chronic anterior uveitis or was greater than grade 2 at Visit 2 (Day 5 – 9) or later.

[5]Only those cases in which the investigator observed a reduction in anterior chamber angle and believed that a Secondary Surgical Intervention (SSI) was necessary.

[6]Cases of endothelial cell loss that were counted as AEs included only cases of loss >30%. Refer to ECD Losses Through Month 6 section for additional information.

[7] Refer to the SSED for PMA P030016 for information on rates of retinal detachment in MICL FDA study.

[8]Only glare/halo leading to lens explantation was reported as an AE.

[9]Loss of CDVA ≥10 letters at any time point > 1 week postoperatively was reported as an AE. Refer to Other Safety Outcomes section and Visual Acuity section for more detail on loss of CDVA.

[10]Residual astigmatism requiring second surgery of lens rotational repositioning.

The incidence of cumulative and persistent ocular AEs identified in the ISO 11979-7:2018 historical grid for Primary and All eyes are presented in **Tables 14 a and b**.

Table 14a: Cumulative and Persistent Ocular AEs[1]

Adverse Event	**Primary Eyes**[2]	**All Eyes**
Cumulative	**N=327** **n, %**[3]	**N=629** **n, %**[3]
Cystoid Macular Edema	0, 0%	0, 0%
Hypopyon	0, 0%	0, 0%
Endophthalmitis	0, 0%	0, 0%
IOL Dislocation	0, 0%	0, 0%
Pupillary Block	0, 0%	0, 0%
Retinal Detachment[4]	1, 0.3%	3, 0.5%
Secondary Surgical Intervention	6, 1.8%	9, 2.8%
Persistent[5]	**N=321** **n, %**[3]	**N=619** **n, %**[3]
Corneal Stroma Edema	0, 0%	0, 0%
Cystoid Macular Edema	0, 0%	0, 0%
Iritis	0, 0%	0, 0%
Raised IOP Requiring Treatment	0, 0%	0, 0%

[1]Refer to Table B.2 in ISO 11979-7 2018(E): Ophthalmic implants - lntraocular lenses Part 7: Clinical investigations for AE categories included in table.

[2]Only the first incidence of an event is counted for any given eye.

[3]Percentage calculated as (n/N)*100.

[4]Comparison should be made to literature for retinal detachment rates for high myopia. Retinal detachment rates increase with increasing myopia. Refer to the SSED for PMA P030016 for information on rates of retinal detachment in MICL FDA study.

[5]Persistent events are those that are present at the last visit. N for persistent AEs is the number of eyes available at the last visit (321 primary eyes and 619 total eyes).

Table 14b: Secondary Surgical Reinterventions

Surgical Reinterventions	All Eyes (N=629)	
	Eyes[1] n (%)[2]	Events n
Intraocular lens exchange	2 (0.3)	2
Intraocular lens removal	1 (0.2)	1
Intraocular lens repositioning	3 (0.5)	3
Retinal surgery	3 (0.5)	7

[1]Only the first incidence of an event is counted for any given eye.
[2]Percentage calculated as (n/N)*100.

The results of AE analyses based on the consensus definitions as set forth by American Academy of Ophthalmology's (AAO) Task Force (Masket et al, 2017) are provided in **Table 15.**

Table 15: Supportive Characterization of Ocular Adverse Events based on a Modified Version of AAO Consensus[1]

Adverse Event	Primary Eyes N=327 n, %[2]	All Eyes N=629 n, %[2]
Chronic Anterior Uveitis	0, 0%	0, 0%
Clinically Significant Cystoid Macular Edema ≥ 1 month	0, 0%	0, 0%
Corneal Edema ≥ 1 week	0, 0%	0, 0%
Endophthalmitis	0, 0%	0, 0%
Mechanical Pupillary Block	0, 0%	0, 0%
Increased IOP	75, 22.9%	136, 21.6%
Retinal Detachment	1, 0.3%	3, 0.5%
Toxic anterior segment syndrome	0, 0%	0, 0%
Hypopyon	0, 0%	0, 0%
IOL Dislocation	0, 0%	0, 0%
Secondary IOL intervention - Exchange	2, 0.6%	2, 0.3%
Secondary IOL intervention - Removal	1, 0.3%	1, 0.2%
Secondary IOL intervention - Reposition	2, 0.6%	3, 0.5%

[1] Masket S, Rorer E, Stark W, Holladay J, MacRae S, Tarver ME, Glasser A, Calogero D, Hilmantel G, Nguyen T, Eydelman M. Special Report: The American Academy of Ophthalmology Task Force Consensus Statement on Adverse Events with Intraocular Lenses. *Ophthalmology*. 2017;124: 142-144.

[2] Percentage calculated as (n/N)*100.

Intraocular Pressure

The most frequently reported ocular AE in this study has been increased IOP, with 143 events in 136 eyes (136/629, 21.6% of all eyes). These AEs commonly occurred either at Postoperative Visit 0 (1 – 6 hours) due to incomplete removal of the dispersive OVD at the end of the surgical procedure (125/629, 19.9% of all eyes), or from 6 to 31 days postoperative due to steroid response (15/629, 2.4% of all eyes). Three other events of increased IOP occurred as a result of SSI (3/629, 0.5% of all eyes). There were no instances of increased IOP attributed by Investigators to pupillary block, narrowing of the ACA, pigment dispersion, or intraocular inflammation.

Of note, no prophylactic systemic or topical IOP lowering medications (e.g., acetazolamide) were allowed during this study. Measurements of IOP in the immediate postoperative period on the same day as implantation were not reported in the MICL and TICL PMA studies.

Events of increased IOP with onset recorded 1 – 6 hours postoperatively (20.5%, 67/327 of primary eyes and 19.9%, (125/629) of all eyes) were managed either without treatment or with aqueous tap and/or and/or ocular hypotensive medication. All events resolved without sequelae by the first postoperative day. **Table 16** provides the distribution of maximum IOP in these cases, and **Table 17** provides the numbers of eyes treated with aqueous tap and/or medication.

Table 16: Maximum IOP Among Incidences of Elevated IOP with Onset on Day 0

Adverse Event – Elevated IOP	**Primary Eyes (N=327)**	**All Eyes (N=629)**
	n (%[1])	n (%[1])
Number of elevated IOP events	67 (20.5)	125 (19.9)
Maximum IOP (mmHg)		
< 30	17 (5.2)	40 (6.4)
≥ 30	50 (15.3)	85 (13.5)
≥ 40	23 (7.0)	38 (6.0)
≥ 50	13 (4.0)	24 (3.8)
≥ 60	6 (1.8)	11 (1.7)
≥ 70	0 (0.0)	1 (1.6)

[1]Percentage calculated as (n/N)*100.

Table 17: Elevated IOP Requiring Treatment with Onset on Day 0 (All Treated Eyes)

Number of elevated IOP events requiring treatment	Primary Eyes (N=55)	All Eyes (N=97)
	n (%[1])	n (%[1])
Events treated with concomitant medication(s)	53 (96.4)	94 (96.9)
Events treated with paracentesis/ AC tap[1]	39 (70.9)	70 (72.2)

[1]Percentage calculated as (n/N)*100.

Note: "paracentesis/AC tap" refers to burping an existing corneal incision to release aqueous; in no case was a needle paracentesis performed.

Serious Adverse Events (SAE)

All secondary surgical interventions performed to treat an ocular event were to be reported as SAEs. A total of 24 SAEs were reported in this study including 2 non-ocular SAEs (not related to study device or procedures) in 2 subjects and 22 ocular SAEs in 7 eyes of 6 subjects.

Ocular SAEs

A total of 22 ocular SAEs have been reported in 7 eyes of 6 subjects in the EVO/EVO+ Study, as shown in **Table 18**. The 22 SAEs include reports of SSI to treat a preceding AE or SAE, or as a prophylactic measure. Of the 22 ocular SAEs reported, 12 events related to retinal events were classified as not related to study device and 10 were classified as related to study device or study device and study procedures by the Investigator.

Table 18: Ocular SAEs – All Eyes

Cumulative Ocular SAEs	All Eyes (N=629)	
	Eyes[1] n (%*)	Events n
Eye experienced any ocular SAE	7 (1.1)	22
Eye disorders		
Glare/Halo	1 (0.2)	1
Narrow anterior chamber angle	2 (0.3)	3
Retinal detachment	3 (0.5)	3
Retinal tear	1 (0.2)	2
Surgical Reinterventions		
Intraocular lens exchange	2 (0.3)	2
Intraocular lens removal	1 (0.2)	1
Intraocular lens repositioning	3 (0.5)	3
Retinal surgery	3 (0.5)	7

[1]Only the first incidence of an event is counted for any given eye.
*Percentage calculated as (n/N)*100.

c. Other Safety Outcomes

Note: For other safety outcomes (Gonioscopy, Loss of CDVA from baseline, and Vault), N is 569 eyes at the Month 6 Visit as these data are based on the treated eyes available for the analysis, prior to the safety update.

Gonioscopy

Table 19 provides the results of gonioscopy at baseline and Month 6. A total of 60 eyes (60/569, 10.5%) demonstrated a narrower angle at Month 6 than at the preoperative visit.

Table 19: Gonioscopy by Visit in All Eyes (Safety Population)

Gonioscopy	Preoperative Visit (N=629) n (%[1])	Month 6 Visit (N=569) n (%[1])
Angle grade		
0	0 (0.0)	0 (0.0)
1	0 (0.0)	2 (0.4)
2	0 (0.0)	9 (1.6)
3	66 (10.5)	87 (15.3)
4	563 (89.5)	469 (82.4)
Missing	0	2
Pigmentation grade		
0	497 (79.0)	430 (75.6)
1	102 (16.2)	110 (19.3)
2	13 (2.1)	11 (1.9)
3	17 (2.7)	16 (2.8)
4	0 (0.0)	0 (0.0)
Missing	0	2
Peripheral anterior synechiae		
Absent	628 (99.8)	566 (99.5)
Present (specify clock hours)	1 (0.2)	1 (0.2)
0.5–2.0	1 (0.2)	1 (0.2)
2.5–4.0	0 (0.0)	0 (0.0)
4.5–6.0	0 (0.0)	0 (0.0)
6.5–8.0	0 (0.0)	0 (0.0)
8.5–10.0	0 (0.0)	0 (0.0)
10.5–12.0	0 (0.0)	0 (0.0)
Missing	0	2

[1]Percentage calculated as (n/N)*100.

Loss of CDVA from Baseline

No significant persistent loss of CDVA ≥2 lines (10 letters) was reported in this study; only 1 eye experienced a transient loss of 2 lines at Week 1, which resolved by the next visit. Overall, 91.7% (522/569) of all eyes reported unchanged or increased CDVA at Month 6 compared with the preoperative visit.

Vault

Table 20 provides the number and percent of eyes with vault measurements <250 microns and >900 microns, as well as mean vault and quartiles for vault at the Month 6 visit. The preoperative factors showing the greatest correlation to

achieved vault were crystalline lens rise[1] above the ATA (angle to angle) plane and lens diameter (**Figure 1** and **Figure 2**).

Table 20: Lens Vault at Month 6 Visit (Interim Anaysis)

Parameter	Primary Eyes	All Eyes
Number of eyes with vault measurement (N)	301	566
Number (%[1]) of eyes measured with vault < 250 μ	33 (11.0)	69 (12.2)
Number (%[*]) of eyes measured with vault > 900 μ	16 (5.3)	30 (5.3)
Mean vault (μ)	503.2	496.8
0th percentile for measured vault (μ)	10.0	10.0
25th percentile for measured vault (μ)	350.0	346.0
50th percentile for measured vault (μ)	475.0	470.0
75th percentile for measured vault (μ)	637.0	634.0
100th percentile for measured vault (μ)	1240.0	1240.0

[1]Percentage calculated as (n/N)*100.

[1] Crystalline lens rise is the distance between the crystalline lens's anterior pole and the horizontal plane joining the opposite iridocorneal recesses.

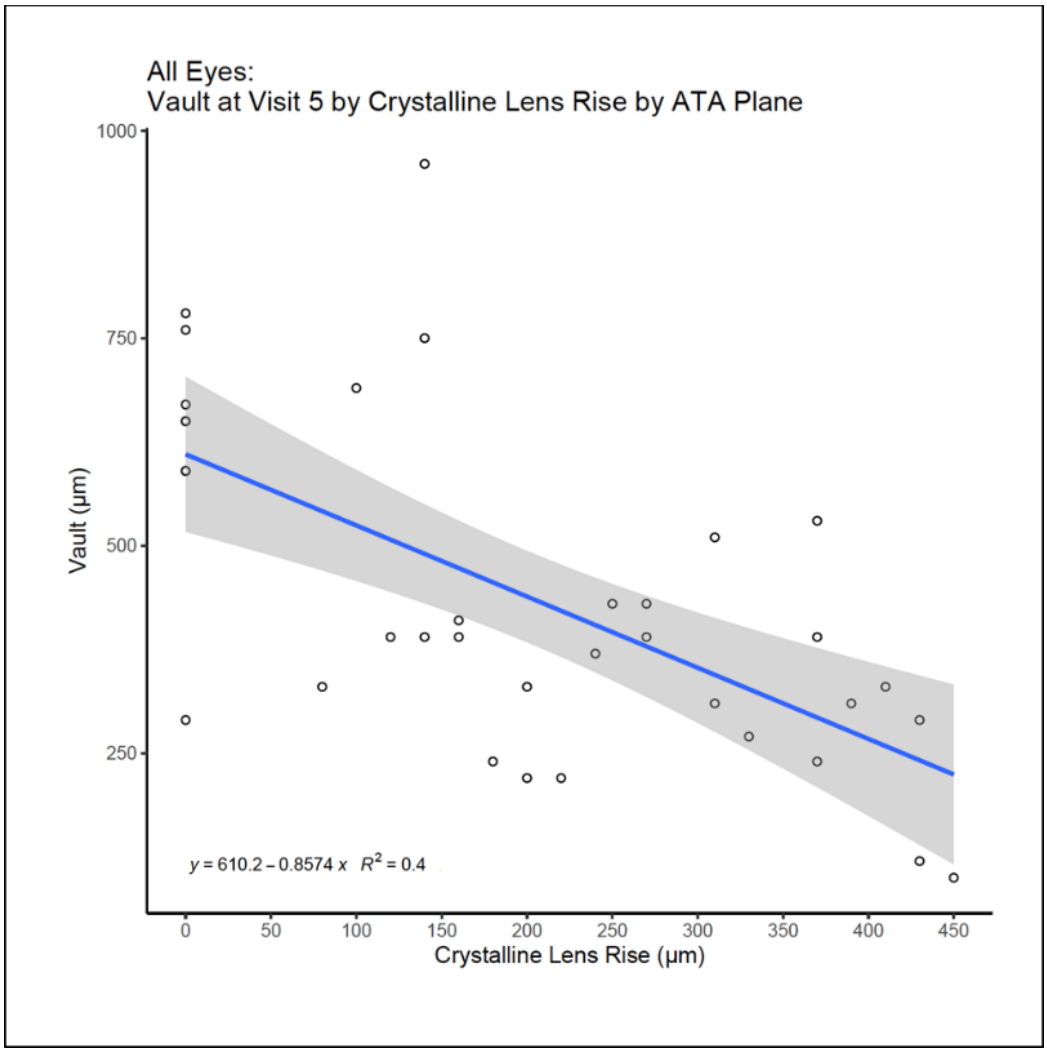

Figure 1: Vault at Month 6 by Crystalline Lens Rise

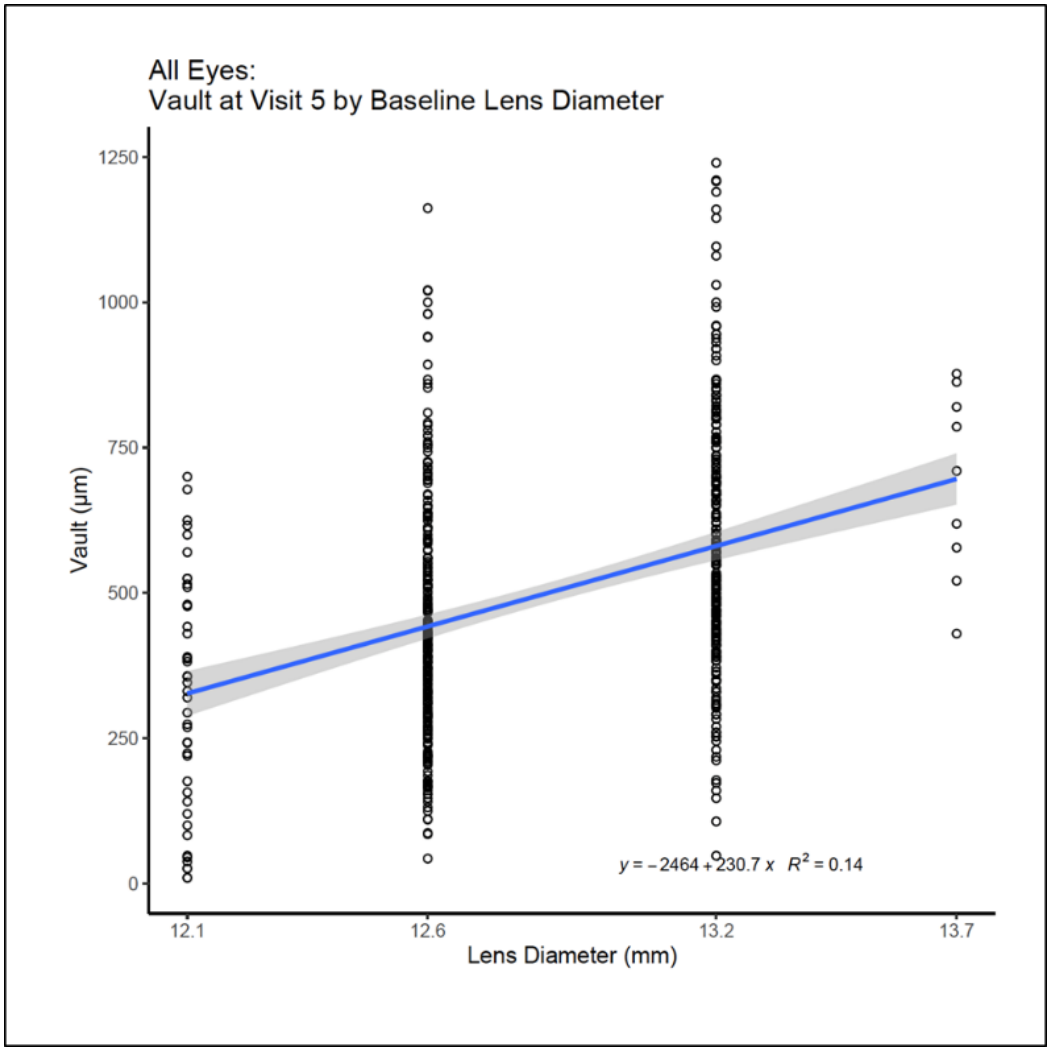

Figure 2: Vault at Month 6 by Lens Diameter

2. Effectiveness Results

The analysis of effectiveness was based on the 303evaluable patients (569 eyes) at the 6-month time point. Key effectiveness outcomes are presented in **Table 21** to **Table 25**. Prespecified measures of effectiveness (with no prespecified performance targets) include accuracy of refractive correction (MRSE) and achievement of UDVA, as well as preservation of CDVA.

i. Accuracy of Refractive Outcome

MRSE by visit is provided in **Table 21**. As shown in **Table 22**, 89.4% (271/303) and 98.3% (298/303) primary eyes and 90.5% (563/569) and 98.9% (563/569) of

all eyes achieved MRSE within ±0.5D and ±1.0D from target at the 6-month examination, respectively.

Table 21: MRSE by Visit

MRSE (D)	PreOp (PO)	Month 1 PO V3	Month 3 PO V4	Month 6 PO V5
Primary Eyes				
N	327	325	324	303
Mean (SD)	-7.63 (2.80)	-0.11 (0.29)	-0.05 (0.31)	-0.09 (0.38)
Median	-7.38	-0.120	0.000	0.000
Min, Max	-15.62, -3.00	-1.25, 1.00	-1.62, 1.12	-3.88, 1.12
Missing	0	0	0	0
All Eyes				
N	629	626	624	569
Mean (SD)	-7.62 (2.76)	-0.11 (0.30)	-0.03 (0.31)	-0.08 (0.34)
Median	-7.38	-0.120	0.000	0.000
Min, Max	-15.62, -3.00	-1.25, 1.00	-1.62, 1.12	-3.88, 1.12
Missing	0	0	0	0

Table 22: MRSE Within ±0.50D and ±1.00D of Target at Month 6

Parameter	**Primary Eyes** (N=303)		**All Eyes** (N=569)	
	Eyes n	**Proportion (95% CI)**	**Eyes n**	**Proportion (95% CI)**
±0.50D	271	0.894 (0.8542 - 0.9266)	515	0.905 (0.8780 - 0.9279)
±1.0D	298	0.983 (0.9619 - 0.9946)	563	0.989 (0.9772 - 0.9961)

ii. Visual Acuity

The postoperative visual acuity outcomes at 6 Months are provided in **Tables 23, 24** and **25.** These data demonstrate that the EVO ICL lens provides accurate refractive correction and levels of UDVA and CDVA consistent with the non central-port MICL and TICL parent lenses.

Table 23: UDVA at 6 Months (Where emmetropia was the goal (±0.50D) and preop CDVA was 20/20 or better)

	All Eyes
N (463)	n, %[1]
20/20 or better	371, 80.1%
20/40 or better	460, 99.4%

[1]Percentage calculated as (n/N)*100.

Table 24: Best Corrected Distance Visual Acuity (CDVA) at 6 Months (Eyes with Preoperative CDVA 20/20 or better)

	6 Months
N (463)	n, %[1]
20/20 or better	458, 98.9%
20/40 or better	463, 100%

[1]Percentage calculated as (n/N)*100.

Table 25: Best Corrected Distance Visual Acuity (CDVA) at 6 Months (All Eyes)

	6 Months
N (619)	n, %[1]
20/20 or better	599, 96.8%
20/40 or better	619, 100%

[1]Percentage calculated as (n/N)*100.

3. Subgroup Analyses

No subgroup analyses were conducted.

4. Pediatric Extrapolation

In this premarket application, existing clinical data was not leveraged to support approval of a pediatric patient population.

E. Financial Disclosure

The Financial Disclosure by Clinical Investigators regulation (21 CFR 54) requires applicants who submit a marketing application to include certain information concerning the compensation to, and financial interests and arrangement of, any clinical investigator conducting clinical studies covered by the regulation. The pivotal clinical study included 14 investigators of which 0 were full-time or part-time employees of the sponsor and 1 had disclosable financial interests/arrangements as defined in 21 CFR 54.2(a), (b), (c) and (f) and described below:

- Compensation to the investigator for conducting the study where the value could be influenced by the outcome of the study: 0
- Significant payment of other sorts: 0
- Proprietary interest in the product tested held by the investigator: 0
- Significant equity interest held by investigator in sponsor of covered study: 1

The applicant has adequately disclosed the financial interest/arrangements with clinical investigators. Statistical analyses were conducted by FDA to determine whether the financial interests/arrangements had any impact on the clinical study outcome. The information provided does not raise any questions about the reliability of the data.

XI. SUMMARY OF SUPPLEMENTAL CLINICAL INFORMATION

The parent Models are the MICL, approved under PMA P030016, and TICL, approved under PMA P030016/S001. Please see the Summary of Safety and Effectiveness Data (SSED) for the clinical summary supporting the MICL and TICL. Also see the Directions For Use (DFU) for a summary of the Post Approval Studies (PASs) conducted with the MICL.

FDA requested input from four external ophthalmic specialists via a special government employee (SGE) homework assignment. They were consulted concerning the device safety with regard to the risks associated cases of early postoperative elevated IOP. The SGEs determined that the elevated IOPs were likely unrelated to the modified design of the EVO/EVO+ Visian ICL and Toric ICL. However, all SGEs agreed that modified labeling and training were needed as risk mitigation measures. In addition, some SGEs expressed concerns that they believed should be addressed through a post approval study (PASs). These concerns were addressed through changes to the labeling and additional training as well as incorporating into the final postapproval study design (see section XIV, below).

XII. PANEL MEETING RECOMMENDATION AND FDA'S POST-PANEL ACTION

In accordance with the provisions of section 515(c)(3) of the act as amended by the Safe Medical Devices Act of 1990, this PMA was not referred to the Ophthalmic Devices Advisory Panel, an FDA advisory committee, for review and recommendation because the information in the PMA substantially duplicates information previously reviewed by this panel.

XIII. CONCLUSIONS DRAWN FROM PRECLINICAL AND CLINICAL STUDIES

A. Effectiveness Conclusions

The objective of this clinical trial is to evaluate the safety, and to collect supportive data concerning the effectiveness, of the EVO Visian ICL lenses. Data supporting effectiveness include accuracy of postoperative MRSE and achieved UDVA, as well as preservation of CDVA. The effectiveness endpoints in the protocol had no prespecified performance targets:

- MRSE within ±1.00D of target at Month 6 Visit
- MRSE within ±0.50D of target at Month 6 Visit
- UDVA of 20/40 or better at Month 6 Visit (for those eyes with CDVA 20/20 or better at Preoperative/Screening Visit)

The MRSE was within ±0.50D in 90.5% (515/569) and within ±1.00D in 98.9% (563/569) of all eyes at Month 6; MRSE was within ±0.50 D in 91.5% (333/364) and within ±1.00 D in 99.5% (362/364) of eyes implanted with a spherical lens at Month 6; MRSE was within ±0.50 D in 88.9% (182/205) and within ±1.00 D in 98.0% (201/205) of eyes implanted with a toric lens at Month 6. For comparison, in the MICL PMA, 67.7% (308/455) of eyes were within ±0.50D and 90.3% (411/455) of eyes were within ±1.00D at 1 year; in the TICL PMA, 76.8% (149/194) of eyes were within ±0.50D and 97.4% (189/194) were within ±1.00D at 1 year.

A total of 99.4% (460/463) of eyes with preoperative CDVA 20/20 or better achieved UDVA 20/40 or better, and 80.1% (371/463) achieved UDVA 20/20 or better at Month 6. For comparison, in the MICL PMA, 96.7% (232/240) of eyes with preoperative CDVA 20/20 or better measured 20/40 or better and 65.4% (157/240) measured 20/20 or better at 1 year; in the TICL PMA, 100% (159/159) of eyes with preoperative CDVA 20/20 or better measured 20/40 or better and 89.3% (142/159) measured 20/20 or better at 1 year.

Corrected distance visual acuity measured 20/40 or better in 100% (619/619) and 20/20 or better in 96.8% (599/619) of all eyes at Month 6, representing an

improvement over 81.6% (513/629) of eyes with CDVA 20/20 or better preoperatively.

The accuracy of refractive correction and the achievement of high levels of UDVA with EVO ICL lenses are comparable to the parent lenses. In addition, the preservation of CDVA indicates outcomes at least comparable to the currently approved and marketed MICL and TICL lenses, and thus supports the conclusion that the central port design has no adverse impact on visual acuity, the effectiveness results met all specific protocol-defined requirements.

B. Safety Conclusions

The risks of the device are based on nonclinical laboratory and animal studies as well as data collected in clinical studies conducted to support PMA and PMA Supplement approvals as described above. Note that the EVO/EVO+ ICL is a design modification (addition of the central port) of the parent myopia ICL device (approved December 22, 2005) and the parent toric myopia ICL device (approved September 13, 2018), and most risks should be similar for the lenses. The U.S. premarket clinical trial data from the study of the myopia ICLs is the primary source of data supporting the safety of the EVO/EVO+ ICL. As discussed below, safety outcomes reported during the EVO/EVO+ ICL clinical investigation provide additional support for the safety of the EVO/EVO+ ICL for the correction of moderate to high myopia and moderate to high myopic astigmatism when implanted without preoperative, prophylactic iridotomies (to reduce the risk of pupillary block).

The primary study endpoint was the incidence (in primary eyes) of PI required to treat elevated IOP caused by mechanical pupillary block through the Month 6 Visit. In this study, no PIs were performed to treat elevated IOP caused by mechanical pupillary block through the Month 6 Visit in primary eyes or fellow eyes.

Endothelial Cell Loss

Mean (SD) ECD loss from baseline was 2.4% (4.3%) in primary eyes at Month 6. A total of 98.0% (314/321) of primary eyes experienced ≤10% ECD loss from preoperative values. The mean (SD) ECD loss from baseline for all eyes at the Month 6 Visit was 2.3% (4.0%). Three eyes have reported ECD loss >30%. The range of change in ECD from baseline for all eyes was +6.3% to -46.7%, with 97.3% (602/619) of all eyes experiencing ≤10% ECD loss from preoperative values. No instances of ECD <1500 cells/mm^2 or <1000 cells/mm^2 have been reported for any eye in this study.

Adverse Events

All ocular AEs that have occurred during this clinical trial to date were similar to those seen with the parent MICL and TICL models, with the following exceptions. The rate of pupillary block seen in this pivotal study of the EVO/EVO+ ICL was substantially lower (no events observed) than the rates seen in the pivotal studies of the parent models. In addition, in the EVO/EVO+ICL study there was a required IOP check at 1 – 6 hours postoperatively (Day 0), which was not a feature of either of the pivotal studies for the parent ICL models. At this visit, a significant rate of IOP spikes (19.9%, 125/629 of all eyes) was found, which appears to have been related to incomplete removal of the dispersive OVD at the end of the surgical procedure. All of these Day 0 IOP increases resolved using only medication and/or paracentesis/ AC tap (burping the existing corneal incision).

No deaths or UADEs have been reported.

Device-related SSIs reported in this clinical trial include 2 exchanges for ACA narrowing, 1 explantation for glare and halo, and 3 repositionings (2 for ACA narrowing, both of which were in the same eyes that subsequently underwent lens exchange, and one for residual astigmatism) for an overall rate of 0.95% (6/629). Of note, none of the cases undergoing repositioning and/or exchange for ACA narrowing were associated with elevated IOP.

Summary

The primary endpoint of the current study was met: the central port design of EVO ICL lenses has been shown to function effectively to allow physiologic flow of aqueous and prevent pupillary block, thus eliminating the requirement for preoperative PIs. Data support the overall safety of EVO ICL lenses, with endothelial cell loss, most AE rates, and preservation of visual acuity at least equivalent to data reported for the currently approved and marketed non-central port MICL and TICL lenses.

C. Benefit-Risk Determination

The probable benefits of the device are based on data collected in a clinical study conducted to support PMA approval as described above. This clinical study has confirmed that the central port design of EVO ICL lenses functions effectively to allow physiologic flow of aqueous and prevent pupillary block, thus eliminating the requirement for preoperative PIs. Data support the overall safety of EVO ICL lenses, with endothelial cell loss and AE rates reported through 6-months postoperatively, generally at least equivalent to data reported for the currently approved and marketed

MICL and TICL lenses. The accuracy of refractive correction and the achievement of high levels of UDVA with EVO ICL lenses are comparable to the parent lenses. In addition, the preservation of CDVA demonstrates outcomes at least comparable to the currently approved and marketed MICL and TICL lenses, and thus supports the conclusion that the central port design has no adverse impact on visual acuity.

The probable risks of the device are also based on data collected in a clinical study conducted to support PMA approval as described above. The EVO/EVO+ ICL only adds a central port with respect to parent myopia ICL and parent toric myopia ICL devices, so the risk profile of the EVO/EVO+ ICL is comparable to that of its parent device. Specific risks include anterior subcapsular opacities/cataract, narrowing of the anterior chamber angle, pupillary block, increased IOP, glaucoma, EVO lens malpositioning, corneal endothelial cell loss, SSI, loss of best spectacle-corrected visual acuity, increase in refractive astigmatism, pigment dispersion, and iris transillumination defects. The rate of pupillary block observed in the pivotal study was substantially lower (no events observed) that pivotal study for parent devices. There was a significant rate of IOP spikes (19.9%, 125/629 eyes) 1 - 6 hours postoperatively.

Additional factors to be considered in determining probable risks and benefits for the EVO ICL device included:

- The Visian MICL (parent lens for myopia correction) has been commercially available in the U.S. market since December 22, 2005, and outside the U.S. in over 50 countries and has not been withdrawn from any market. Approximately 227,000 Myopic Implantable Collamer Lenses have been implanted outside the U.S.
- The Visian TICL (parent lens for myopia with astigmatism correction) has been commercially available in the U.S. market since Septemeber 13, 2018 and outside the U.S. in over 50 countries and has not been withdrawn from any market. Approximately 104,000 Toric Myopic Implantable Collamer Lenses have been implanted outside the U.S.
- The EVO ICL has been commercially available outside of the US in over 75 countries and has not been withdrawn from any market. Approximately 1,000,000 EVO ICL lenses have been implanted outsie the US.
- The results of the EVO ICL Pivotal clinical trial appear to be generalizable to the intended patient population.

The benefits of EVO ICL lenses appear to outweigh their risks. Their safety and performance profile appears similar to that of the currently approved and marketed

MICL and TICL lenses; but without the additional risk and inconvenience associated with the need for preoperative, prophylactic PIs.

1. Patient Perspective
   This submission either did not include specific information on patient perspectives or the information did not serve as part of the basis of the decision to approve or deny the PMA for this device.

In conclusion, given the available information above, the data support that for patients 21 - 45 years of age:

(EVO/EVO+ Sphere Lenses)

- for the correction of myopia with spherical equivalent ranging from -3.0D to ≤ -15.0D with less than or equal to 2.5D of astigmatism at the spectacle plane;
- for the reduction of myopia with spherical equivalent ranging from greater than -15.0D to -20.0D with less than or equal to 2.5D of astigmatism at the spectacle plane;

AND

(EVO/EVO+ Toric Lenses)

- for the correction of myopic astigmatism with spherical equivalent ranging from -3.0D to ≤ -15.0D (in the spectacle plane) with cylinder (spectacle plane) of 1.0D to 4.0D.
- for the reduction of myopic astigmatism with spherical equivalent ranging from greater than -15.0D to -20.0D (in the spectacle plane) with cylinder (spectacle plane)1.0D to 4.0D.

- with an anterior chamber depth (ACD) of 3.00 mm or greater, when measured from the corneal endothelium to the anterior surface of the crystalline lens and a stable refractive history (within 0.5D for both spherical equivalent and cylinder for 1 year prior to implantation).
- for placement in the posterior chamber (ciliary sulcus) of the phakic eye.

the probable benefits outweigh the probable risks.

D. Overall Conclusions

The data in this application support the reasonable assurance of safety and effectiveness of this device when used in accordance with the indications for use. This builds upon the larger body of safety data from the parent Visian MICL presented in PMA P030016 and Visian TICL presented in PMA P030016/S001, and

is supported by the worldwide clinical experience with over 1,000,000 Visian TICLs and Visian MICLs and EVO/EVO+ ICLs implanted globally.

The U.S. FDA clinical trial data from the approved myopia study with spherical ICLs is the primary source of data, supplemented by the US clinical trial data from the approved Visian TICL. The safety outcomes reported during the EVO/EVO+ ICL clinical investigation provide additional support for the safety of the EVO/EVO+ ICL for the correction of moderate to high myopia and myopic astigmatism. All primary safety outcomes with the EVO/EVO+ ICL were better or comparable to those previously reported with the FDA-approved Spherical Visian MICL and Visian TICL.

The effectiveness outcomes reported during the EVO/EVO+ ICL clinical investigation support the overall effectiveness of EVO/EVO+ ICL implantation for the correction of moderate to high myopia and myopic astigmatism. The data show that the performance of EVO/EVO+ ICL is at least equivalent to that of the currently approved and marketed non-central port MICL and TICL lenses.

XIV. CDRH DECISION

CDRH issued an approval order on 3/25/2022. The final clinical conditions of approval cited in the approval order are described below.

STAAR Surgical will conduct two Post Approval Clinical Studies. These studies will be conducted as per the protocol agreed upon between FDA and STAAR Surgical. The study protocol outlines are as follows:

1. The CP19-01- Post Approval Follow-Up of PMA Cohort is a continuation of IDE study G190184. This study will be conducted as per the protocol outline in our March 16, 2022, email. On March 17, 2022, you agreed to conduct the continuation study, previously conducted per protocol CP19-01 approved under IDE G190184, which is a prospective, single-arm, multi-center, observational study. The study is designed to evaluate the long-term safety and collect supportive data concerning the effectiveness of the EVO/EVO+ Visian Implantable Collamer Lens. All 327 available subjects enrolled and who completed postoperative Visit 5 under the original IDE study are intended to be reconsented at the 14 clinical sites to enroll in the continuation study. Subjects will continue follow-up at regular intervals as follows: postoperative visit 6 (330-420 days), postoperative visit 7 (690-810 days), and postoperative visit 8 (1050-1170 days) to ensure at least 300 eyes with 3-year data post-implantation are available for analysis.

   The co-primary endpoints are:

- Distribution of percent endothelial cell density (ECD) losses and the percent of eyes that have ECD <1500 and ECD <1000 through Postoperative Visit 8 (Day 1050 – 1170).
- Incidence of adverse events (AEs) through Postoperative Visit 8 (Day 1050 – 1170).

Co-primary endpoints will be evaluated in all eyes (primary and fellow eyes) using descriptive statistics with comparisons to PMA data for the approved and currently marketed MICL and TMICL devices, where appropriate. The co-primary endpoints have no prespecified performance targets.

The following timelines for the continuation study will be met:

- Submit an annual report by August 23 of each year, beginning on August 22, 2022.
- Complete 36-month follow-up on all PAS subjects by August 23, 2024 (36 months)
- The Final study report will be submitted 3 months from study completion (i.e., last subject, last follow-up date).

2. The Post-Market Evaluation of the EVO ICL is a new enrollment, prospective, multi-center, single arm post-approval study. This study will be conducted as per the protocol outline in our March 16, 2022, email. On March 17, 2022, you agreed to conduct the new-enrollment study. The study is designed to evaluate the success of the EVO Physician Certification Program in reducing the rate of early IOP increases at 1-6 hours after implantation of EVO/EVO+ ICL lenses by surgeons who have been trained and certified under the EVO Physician Certification Program. The study will enroll at least 200 subjects. Subjects will continue follow-up for up to about two weeks post-implantation at the following timepoints: 1-6 hours postoperatively, 1 day postoperatively, 5-9 days postoperatively, and 10-18 days postoperatively. The primary endpoint is the proportion of primary eyes that have IOP ≥ 30 mmHg and IOP ≥ 40 mmHg at 1-6 hours postoperatively. The secondary endpoint is the proportion of fellow eyes that have IOP ≥ 30 mmHg and IOP ≥ 40 mmHg at 1-6 hours postoperatively.

   From the time of study protocol approval, you must meet the following timelines for Post-Market Evaluation of the EVO ICL:

   - First subject enrolled within 6 months from the time of protocol approval
   - 20% of subjects enrolled within 12 months from the time of protocol approval
   - 50% of subjects enrolled within 18 months from the time of protocol approval
   - 100% of subjects enrolled within 24 months from the time of protocol approval
   - Submission of Final study report: 3 months from study completion (i.e., last subject, last follow-up date)

The applicant's manufacturing facilities have been inspected and found to be in compliance with the device Quality System (QS) regulation (21 CFR 820).

XV. APPROVAL SPECIFICATIONS

Directions for use: See device labeling.

Hazards to Health from Use of the Device: See Indications, Contraindications, Warnings, Precautions, and Adverse Events in the device labeling.

Post-approval Requirements and Restrictions: See approval order.

XVI. REFERENCES

Directions for Use. STAAR Surgical Visian® ICL™ (Implantable Collamer® Lens) for Myopia (MICL).

Directions for Use. STAAR Surgical Visian® Toric ICL™ (Implantable Collamer® Lens) for Myopia (TICL).

EN ISO 11979-2 Ophthalmic Implants – Intraocular Lenses – Part 2: Optical Properties and Test Methods

EN ISO 11979-3 Ophthalmic Implants – Intraocular Lenses – Part 3: Mechanical Properties and Test Methods

EN ISO 11979-7:2018(E) – Ophthalmic Implants-Intraocular lenses Part 7: Clinical investigations of intraocular lenses for the correction of aphakia.

Masket S, Rorer E, Stark W, Holladay J, MacRae S, Tarver ME, Glasser A, Calogero D, Hilmantel G, Nguyen T, Eydelman M. Special Report: The American Academy of Ophthalmology Task Force Consensus Statement on Adverse Events with Intraocular Lenses. *Ophthalmology*. 2017;124: 142-144.