Real-world Patient Demographics and Clinical Characteristics of an Intracanalicular Dexamethasone Insert Using the Academy's IRIS® Registry (Intelligent Research in Sight)

Michael Mbagwu, MD[1,2,3], Srilatha Vantipalli, PhD[4], Dina Akasheh, PhD[4], Matthew Cheung, PharmD[4], Aditi Bauskar, PhD[4], Sonya Li[2], Rabia Gurses-Ozden, MD[4], Michael H. Goldstein, MD[4]

[1]Veterans Affairs Palo Alto Health Care System, Palo Alto, CA; [2]Verana Health, San Francisco, CA; [3]Stanford University Byers Eye Institute, Palo Alto, CA; [4]Ocular Therapeutix, Bedford, MA

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Disclosures

- **Presenter:** Michael Mbagwu is an employee of Verana Health.
- **Co-authors:** Srilatha Vantipalli, Dina Akasheh, Matthew Cheung, Aditi Bauskar and Rabia Gurses-Ozden are employees of Ocular Therapeutix. Sonya Li is an employee of Verana Health. Michael H. Goldstein is a consultant for Ocular Therapeutix.
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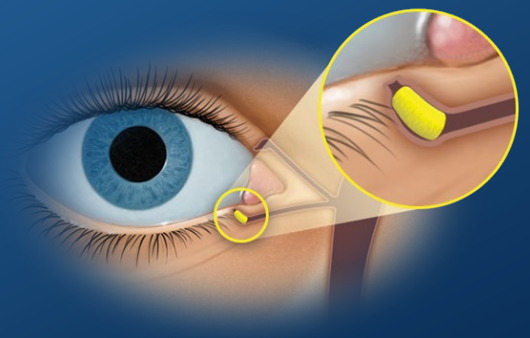
Introduction

Treating Postop Inflammation

- Topical steroids and NSAIDs are often used for perioperative treatment of intraocular inflammation[1]
- Newer approaches deliver corticosteroids via:[2-5]
  - Intracanalicular insert
  - Intraocular depot
  - Intravitreal implant
  - Subconjunctival injection

Intracanalicular Dexamethasone Insert (DEXTENZA)[2]

- Hydrogel insert that delivers 0.4 mg dexamethasone to the ocular surface in a tapered fashion for 30 days
- Antimicrobial preservative-free
- Resorbable; no need for removal
- FDA approved for the treatment postop ocular pain and inflammation in Nov 2018 and Jun 2019, respectively



Objective: To describe real-world safety outcomes of patients who underwent cataract surgery and did or did not receive intracanalicular dexamethasone insert (DEX)

References: 1. Juthani VV, et al. *Cochrane Database Syst Rev*. 2017;7(7):CD010516. **2.** DEXTENZA [prescribing information]. Bedford, MA: Ocular Therapeutix, Inc.; 2021. **3.** Donnenfeld E, et al. *Ophthalmology*. 2018;125(6):799-806. **4.** Li YT, et al. *Int J Ophthalmol*. 2021;14(2):317-322. **5.** Dieleman M, et al. *J Cataract Refract Surg*. 2011;37(9):1589-1597.

Methodology: A Retrospective Analysis of EHR Data using the Academy's IRIS Registry (Intelligent Research in Sight)

IRIS® Registry[a]

Total Unique Patients

73.85 million

Total Patient Visits

440.72 million

Total Ophthalmic Clinicians

15,601

Key Inclusion Criteria

- Underwent cataract surgery[b] from June 1, 2019 to March 31, 2021
- Intracanalicular dexamethasone[c] used within -2 to +7 days of cataract procedure

Key Exclusion Criteria

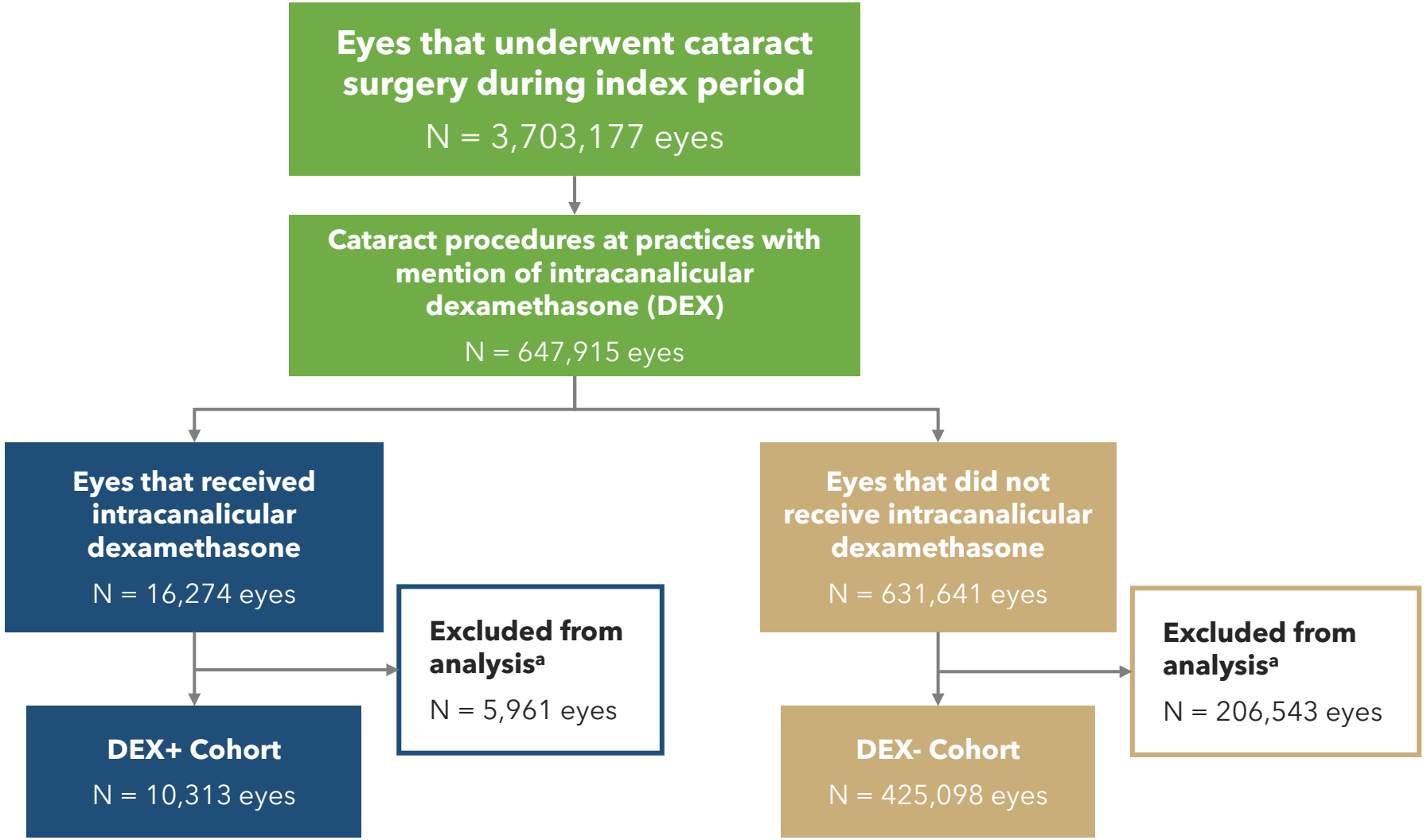
- Missing laterality for cataract surgery
- Missing patient demographic information
- Less than 1-month follow-up after cataract surgery
- Mention of dexamethasone intraocular suspension (DEXYCU®) in the procedure table

Study Outcomes

- Patient baseline demographics
- Clinical ocular comorbidities (up to 6 months preceding date of cataract surgery)
- Type of cataract surgery

[a] as of April 1, 2022
[b] defined as presence of CPT code 66984 or 66982
[c] defined as presence of J-code (J1096), C-code (C9048), CPT code (0356T), NDC number (70382-0204-01, 70382-204-10), or keywords indicated intracanalicular dexamethasone use (eg, "DEXTENZA", "dexamethasone, lacrimal ophthalmic insert", "intracanalicular dexamethasone", "lacrimal dexamethasone insert") in the procedural table
[d] identified by the presence of new ICD-10 codes

Study Population



[a] based on exclusion criteria: 1) Missing laterality for cataract surgery 2) Missing patient demographic information 3) Less than 1-month follow-up after cataract surgery 4) Mention of dexamethasone intraocular suspension (DEXYCU®) in the procedure table

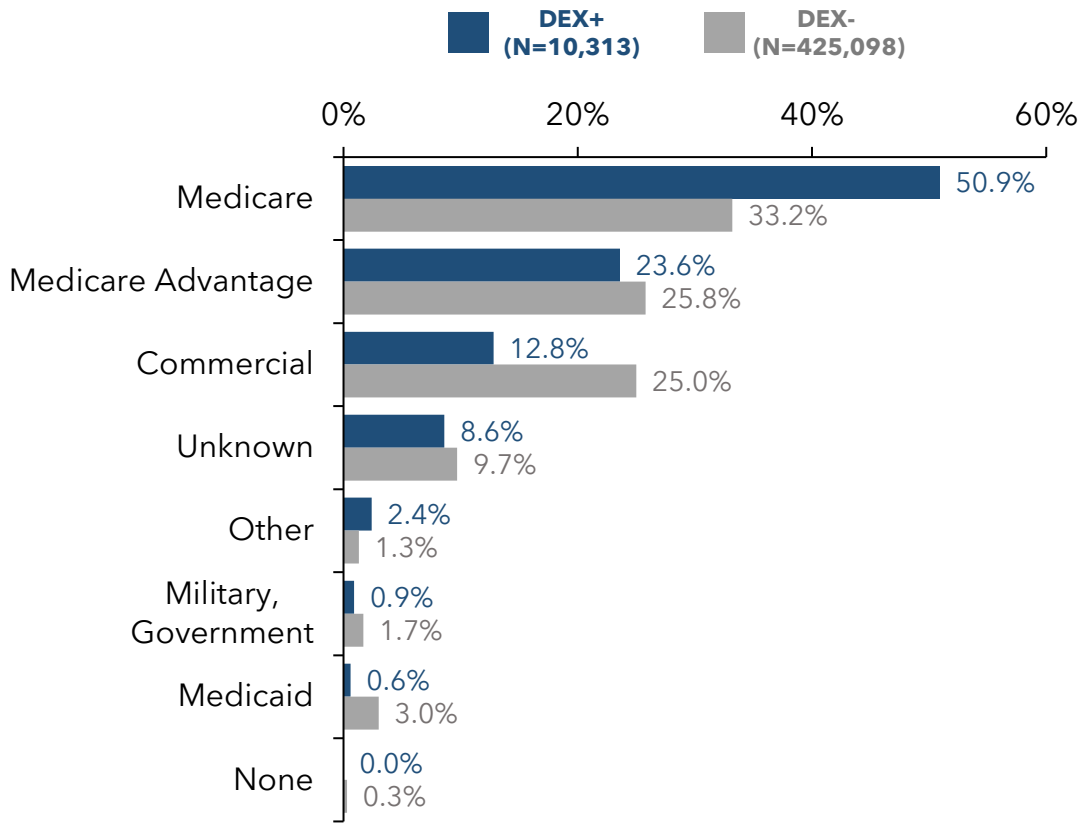
Patient Characteristics and Demographics

DEX+ patients were mean 73.4 years, 59.4% female and 74.6% Medicare beneficiaries

Baseline Demographic Characteristics

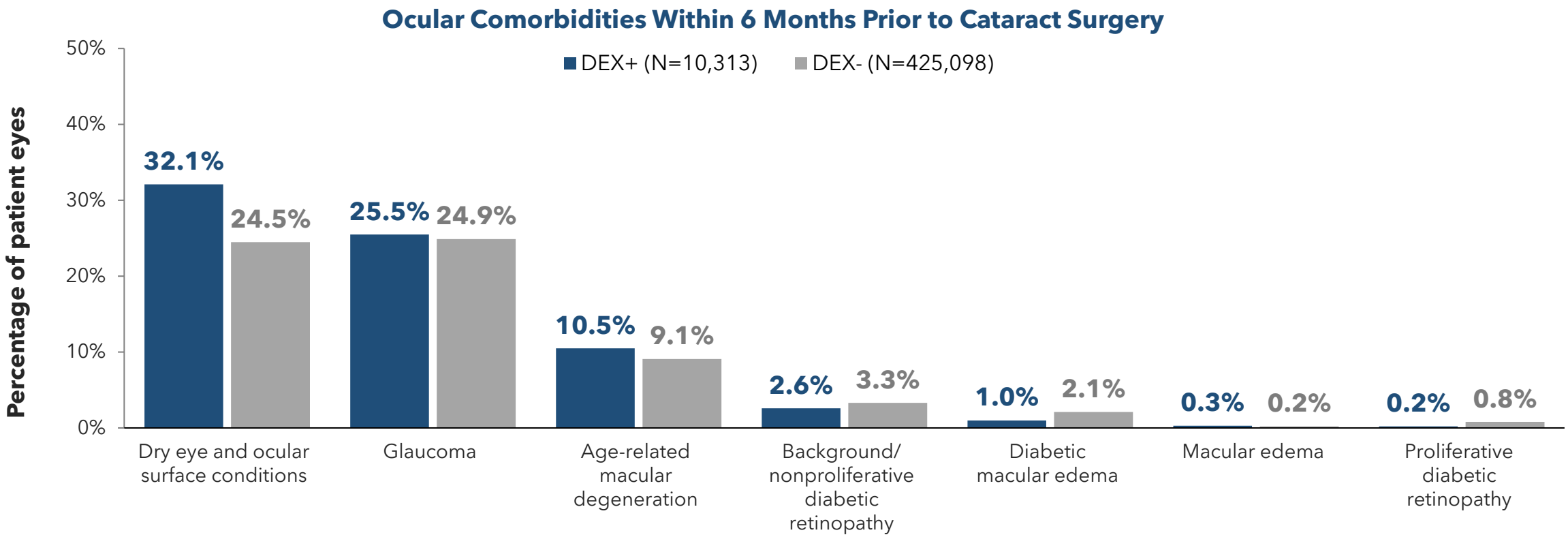
	DEX+ (N=10,313)	DEX- (N=425,098)
Mean age, years (SD)	73.44 (6.83)	70.54 (9.09)
Sex, n (%)		
Female	6,128 (59.4%)	250,237 (58.9%)
Male	4,185 (40.6%)	174,861 (41.1%)
Race, n (%)		
White/Caucasian	7,807 (75.7%)	274,451 (64.6%)
Black/African American	534 (5.2%)	34,901 (8.2%)
Asian	113 (1.1%)	8,160 (1.9%)
Other	79 (0.8%)	7,844 (1.8%)
Unknown	1,780 (17.3%)	99,742 (23.5%)
Ethnicity, n (%)		
Not Hispanic or Latino	6,364 (61.7%)	238,040 (56.0%)
Hispanic or Latino	212 (2.1%)	23,684 (5.6%)
Unknown	3,737 (36.2%)	163,374 (38.4%)

Payer Type



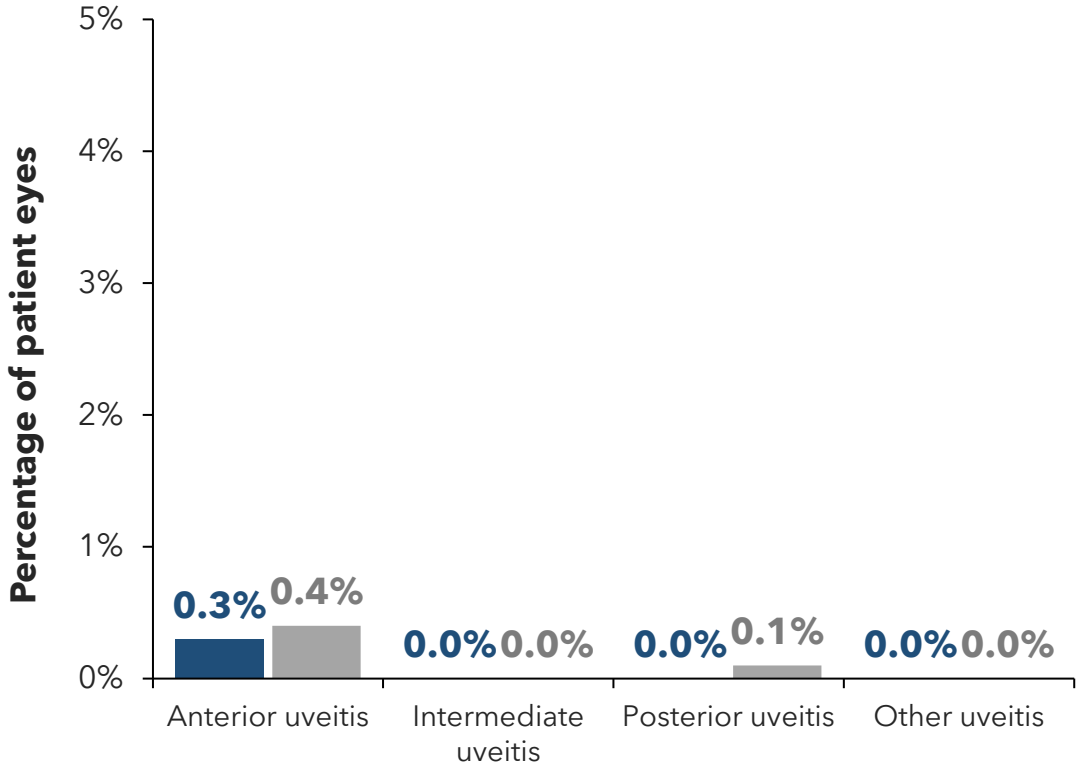
Preoperative Characteristics: Ocular Comorbidities

- **DEX was used more frequently in patients with dry eye/ocular surface conditions vs. the non-DEX cohort**
- **Use of DEX was observed in patients with glaucoma**



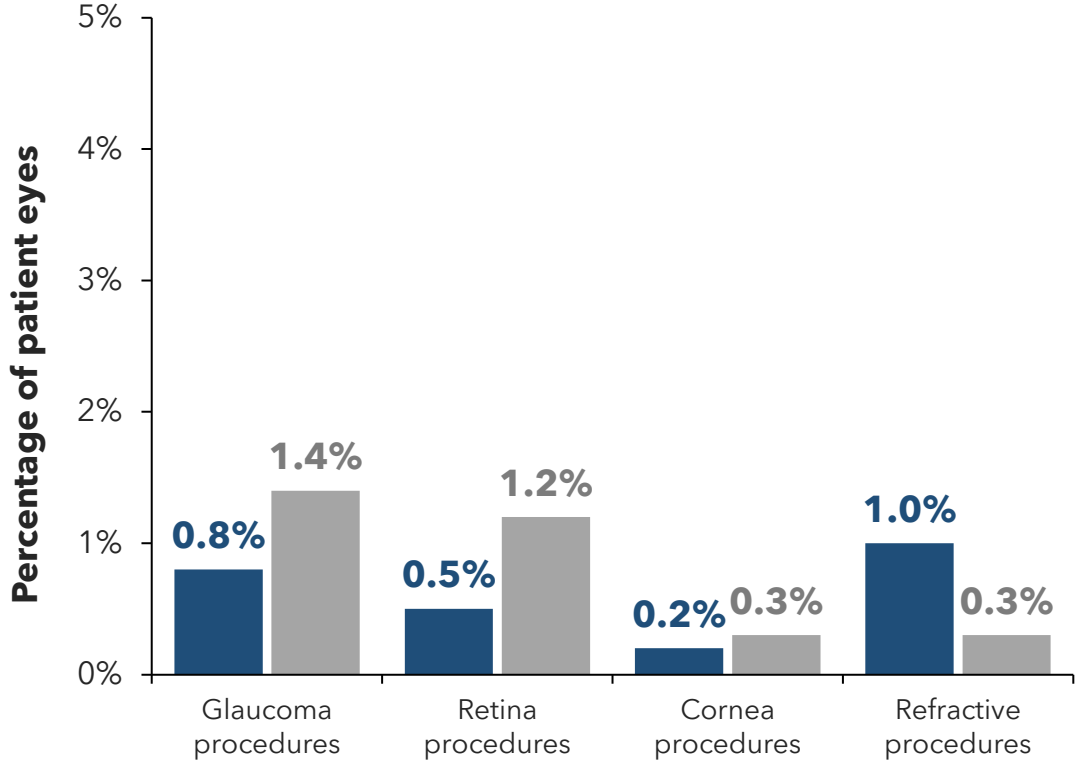
Preoperative Characteristics: Prior History of Inflammation Events and Ocular Procedures

History of Inflammation Events in the Prior 6 Months



	Anterior uveitis	Intermediate uveitis	Posterior uveitis	Other uveitis
DEX+, n (N=10,313)	28	0	3	3
DEX-, n (N=425,098)	1,776	38	241	194

Ocular Procedures in the Prior 6 Months

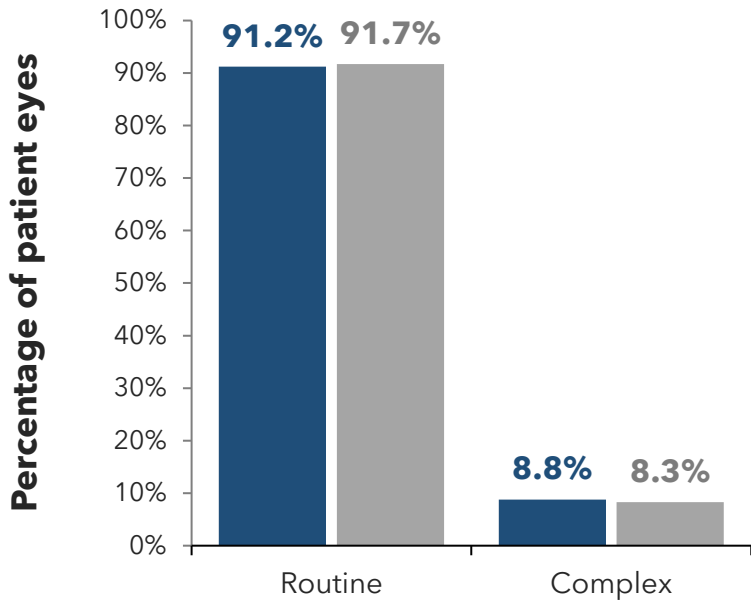


	Glaucoma procedures	Retina procedures	Cornea procedures	Refractive procedures
DEX+, n (N=10,313)	85	48	24	99
DEX-, n (N=425,098)	5,965	5,152	1,161	1,206

Intraoperative Characteristics: Cataract Surgery Type

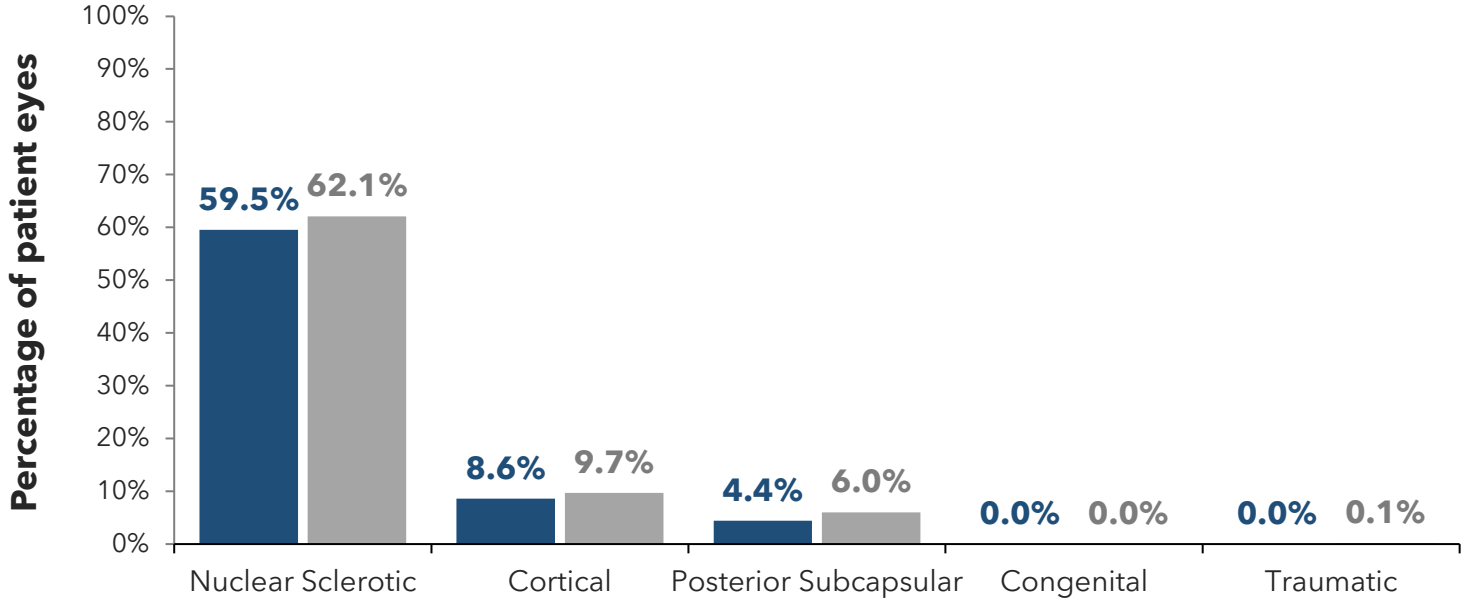
Intracanalicular dexamethasone use was comparable for cataract etiology and surgery type

Cataract Surgery Type



	Routine	Complex
DEX+, n (N=10,313)	9,410	903
DEX-, n (N=425,098)	389,632	35,466

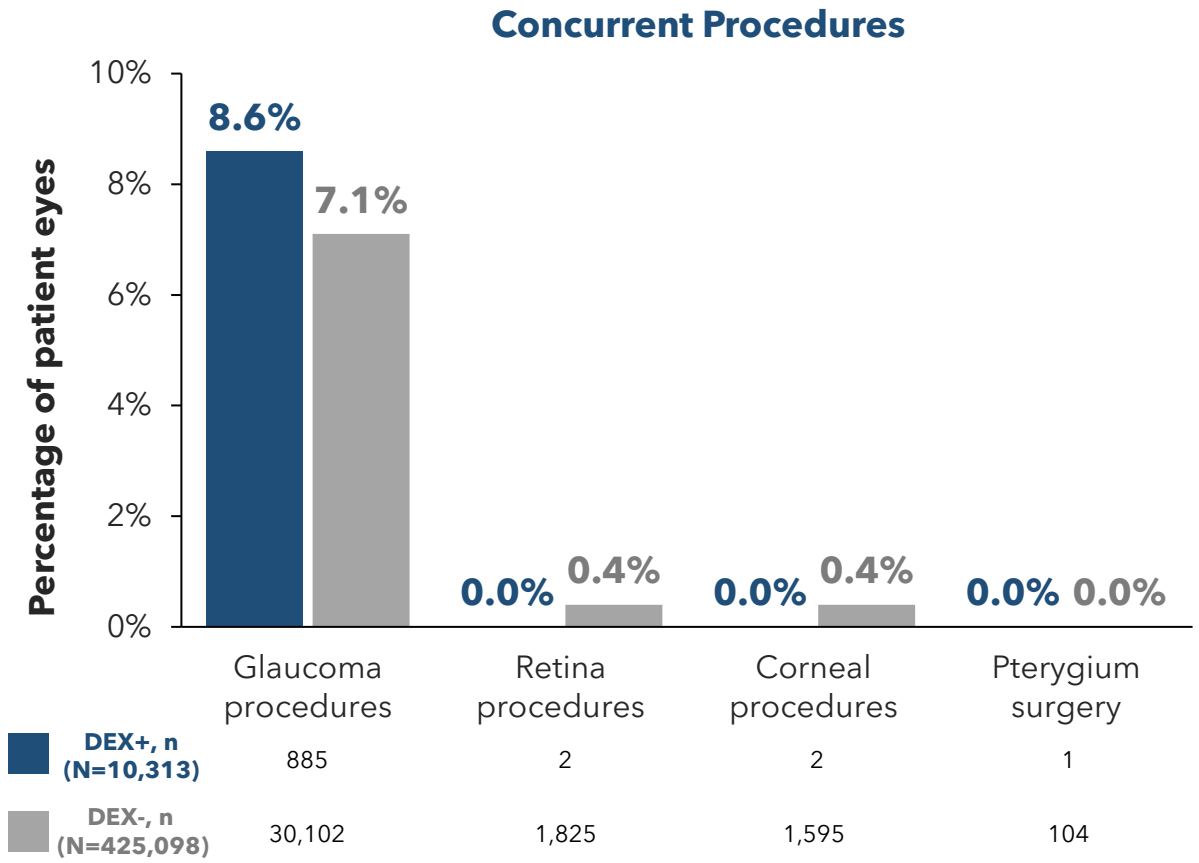
Cataract Type



	Nuclear Sclerotic	Cortical	Posterior Subcapsular	Congenital	Traumatic
DEX+, n (N=10,313)	6,138	885	450	5	3
DEX-, n (N=425,098)	263,865	41,438	25,676	161	462

Intraoperative Characteristics: Concurrent Procedures

8.6% of intracanalicular dexamethasone patients underwent concurrent glaucoma surgery on the same day as cataract surgery



Conclusions

- Current study is the largest analysis performed on patients treated with intracanalicular dexamethasone insert (N=10,313 eyes)
- Results identified demographics and pertinent clinical characteristics of cataract surgery patients treated with intracanalicular dexamethasone from 2019 to 2021 that can help inform practice patterns
- Real-world data showed **more frequent use in patients with ocular surface diseases** suggesting a potential prescriber preference in patients with dry eye or ocular surface diseases
- Sustained-release **steroid insert was used in patients with glaucoma or who underwent combined cataract and glaucoma surgery**