

# CLINICAL OUTCOMES OF A NOVEL, INTEGRATED FEMTOSECOND LASER- PHACOEMULSIFICATION SYSTEM

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# Disclosures

- HSU has received research funding from:
  - AbbVie
  - Alcon Surgical
  - Hoya Surgical Optics
  - LENSAR
  - Novartis
  - Opthea
  - Santen

# Introduction

- FLACS is an effective and safe technology for cataract surgery
- An integrated femto-phaco system allows femtosecond laser procedure and phacoemulsification to be performed in a single sterile environment
- Shortened procedure time while eliminating moving from laser to PHACO area
- Stronger suction, faster imaging and laser treatment
- Potentially better patient and surgeon experience



ALLY ADAPTIVE CATARACT  
TREATMENT SYSTEM

# Purpose

- To report the early clinical outcomes in eyes undergoing FLACS using a new generation, integrated femtosecond laser (FSL)–phacoemulsification (PHACO) system.

# Patients and Methods

**Study design:** Single-center, prospective, interventional, open-label, non-randomized, clinical study.

## Subjects

- 67 eyes underwent FLACS with a new, integrated FSL-PHACO device
- Alcon SA60 IOL
- 4 cataract surgeons at Peregrine Eye and Laser Institute

## Inclusion criteria:

- **Age** >21 years
- Clear corneas
- Operable cataract
- Consent

## Exclusion criteria:

- Corneal or significant ocular pathology
- BCVA < 20/100 in contralateral eye

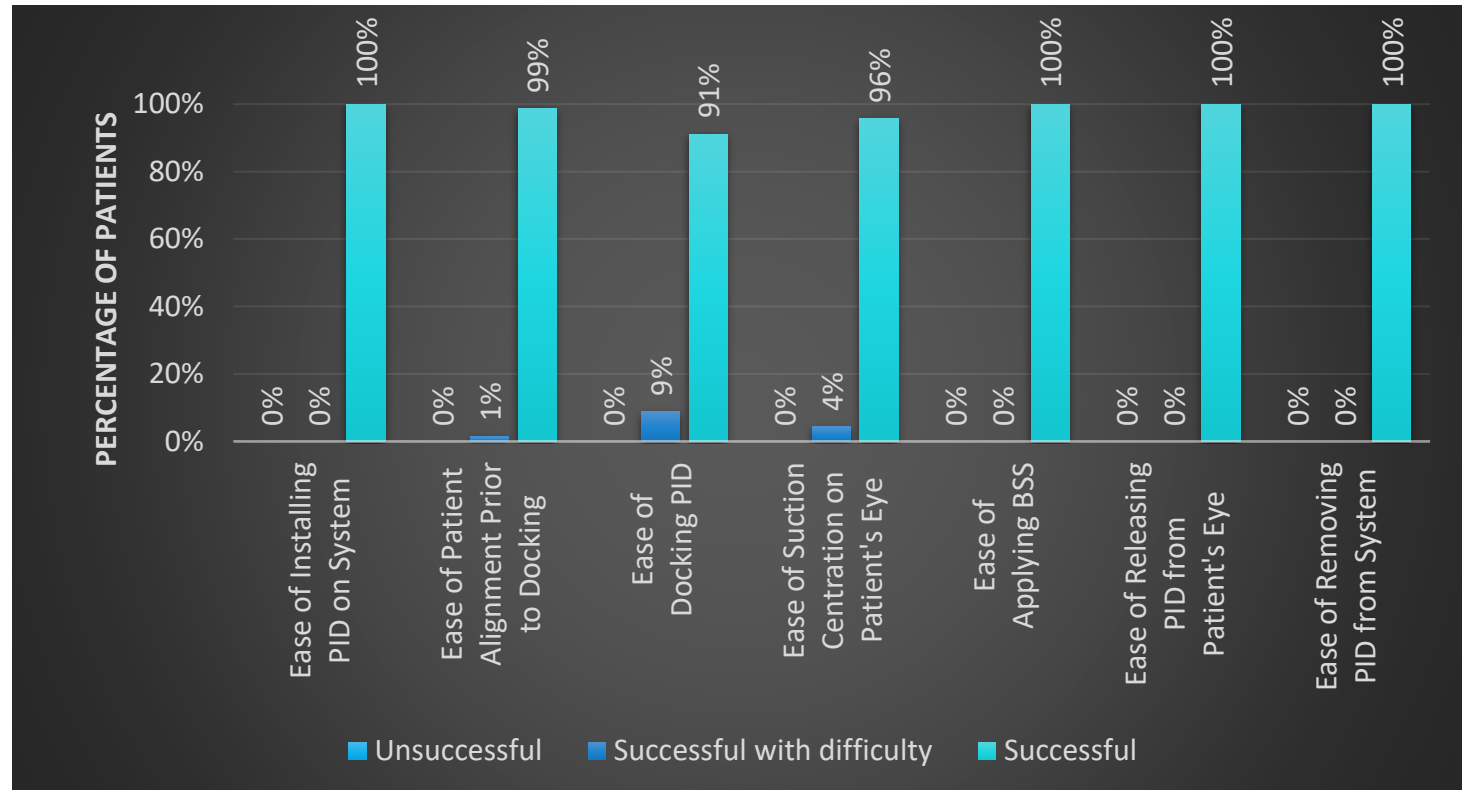
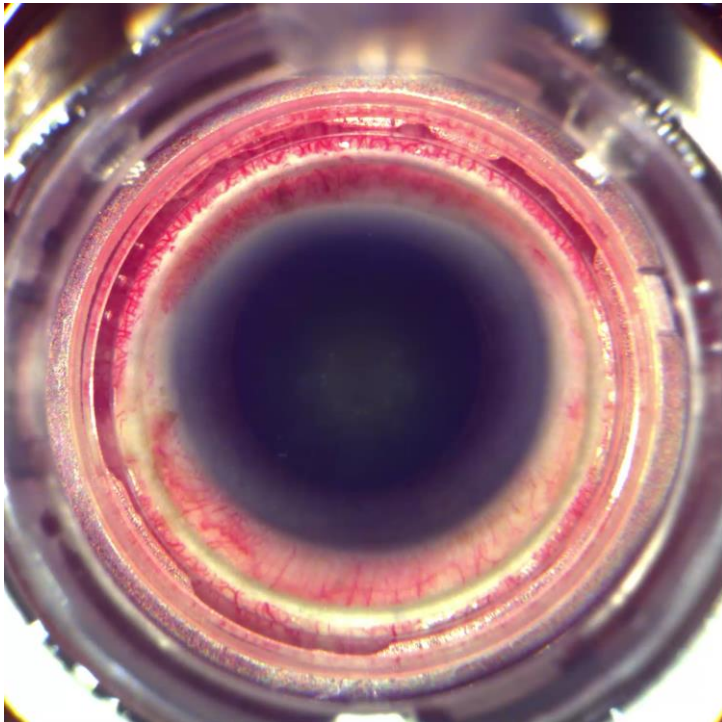
## Outcome measures included:

- Docking ease
- Blackout during femto
- Visual Outcomes
- Effective Phaco Time
- Surgeon questionnaire

**Follow-up:** Postoperative DAY 1; WEEKS 2 & 6

# Results: PID & Docking Ease

## INVESTIGATORS' ASSESSMENT OF INTEGRATED FSL-PHACO PID

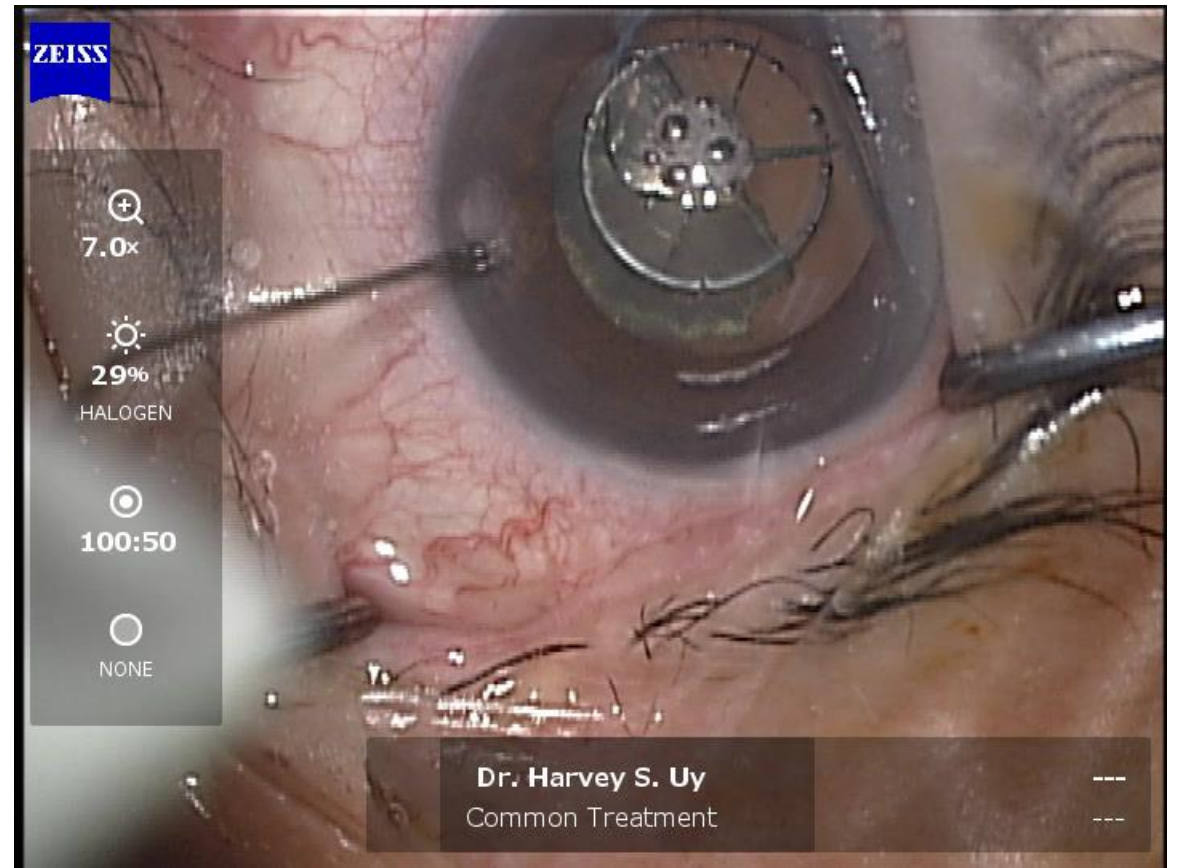


\* In 97% of patients, no blackout during PID docking

# Results: INTEGRATED FSL-PHACO SYSTEM

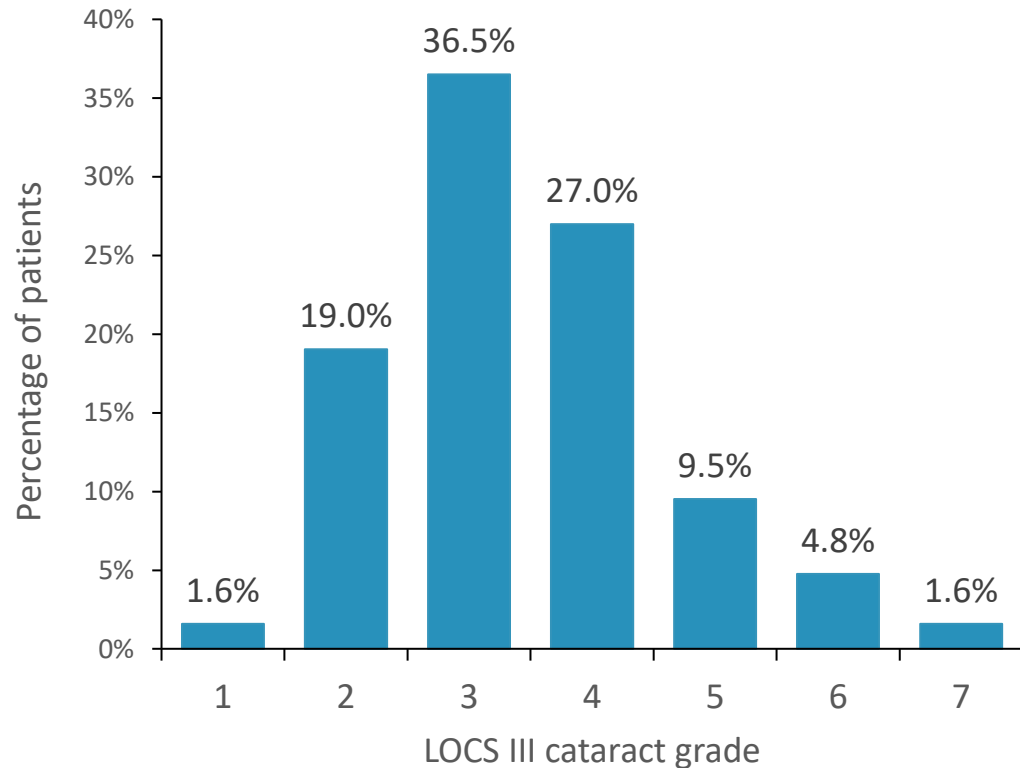
## INVESTIGATOR'S ASSESSMENT OF CCI

- In 100%, laser treatment were completed
- In 97%, sideport and clear corneal incisions were easily opened
- In 100%, the laser capsulotomies were round in shape and free floating
- In 100%, PHACO and IOL implantation were successfully completed



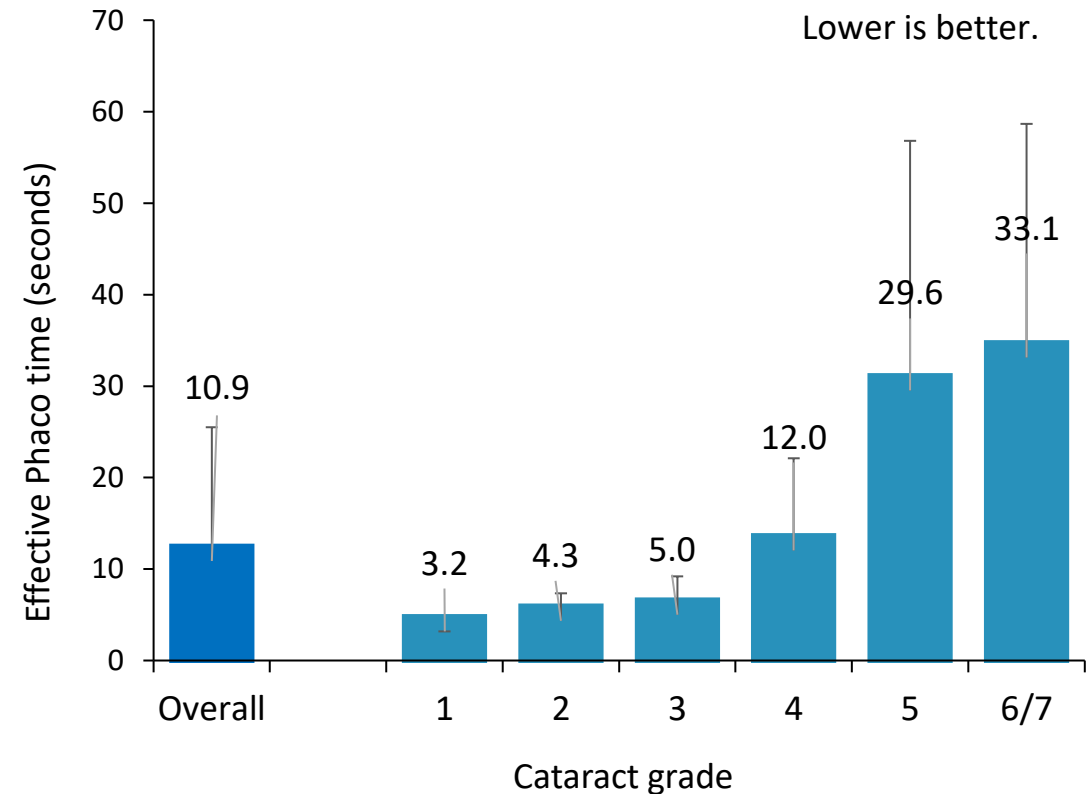
# Results: Effective PHACO Time (EPT)

## LOCS III nuclear grade

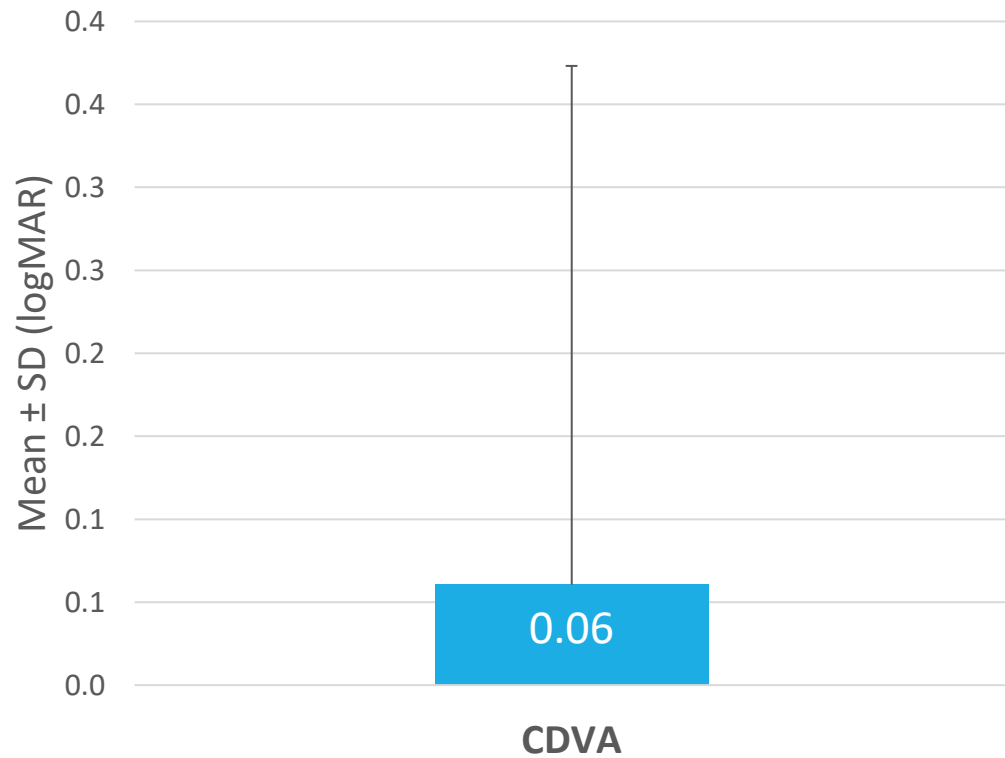


\*Mean nucleus grade=  $3.43 \pm 1.88$

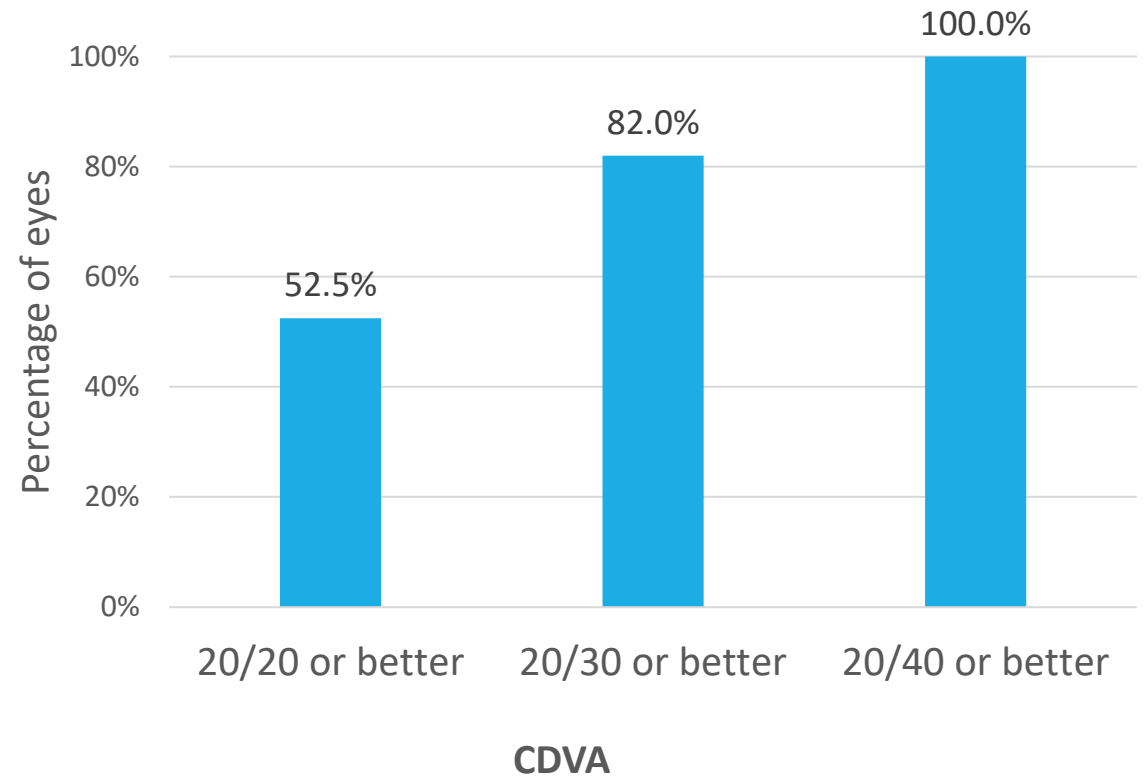
## Mean Overall EPT and for Each Cataract Grade



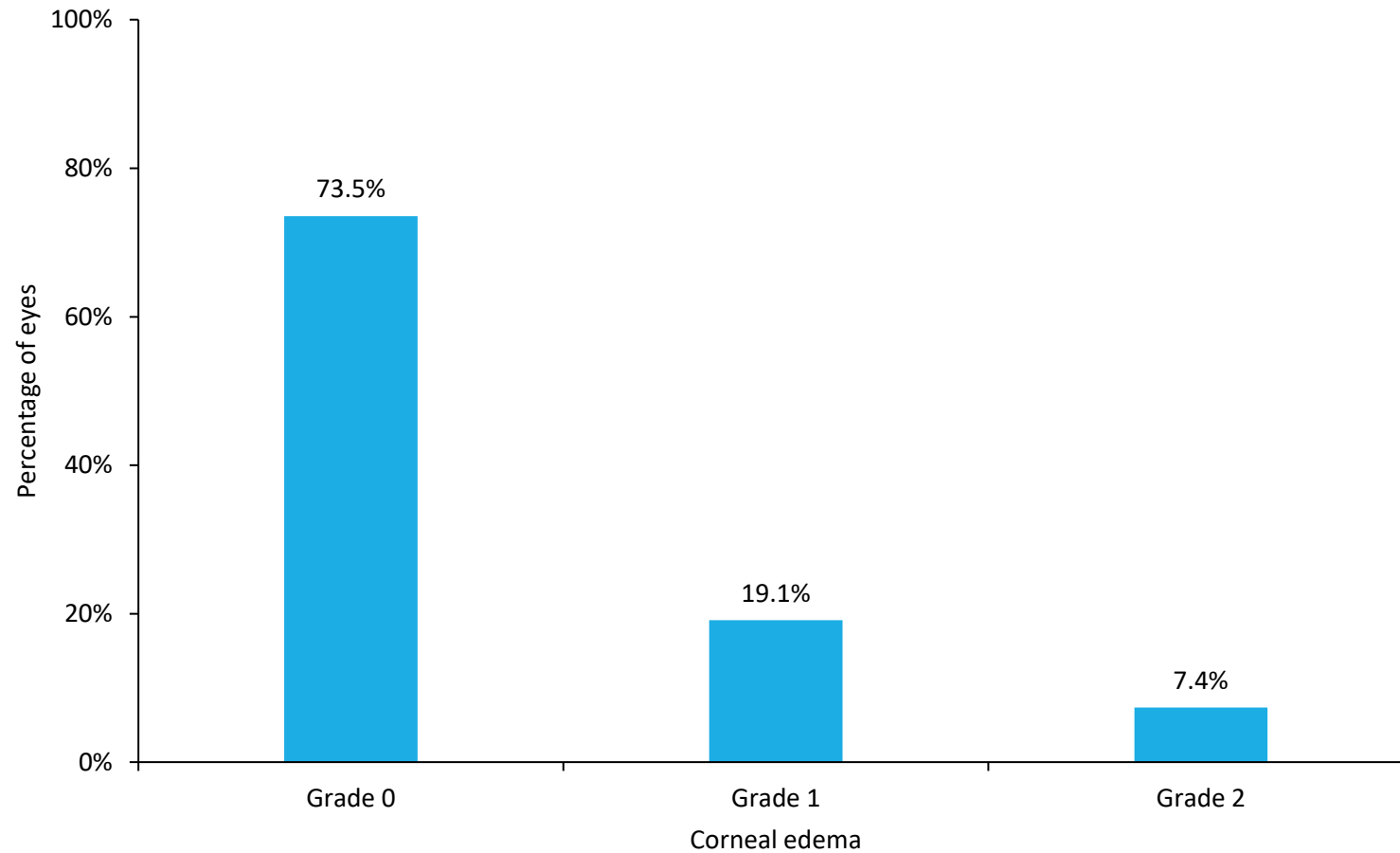
# Results: 6-week Visual Outcomes



Mean Snellen equivalent = 20/23



# Results: Postoperative Corneal Edema



\* No sight threatening adverse events in 67 eyes

# Discussion & Conclusion

- Docking and laser treatment were more easily done due to stronger suction, shorter imaging time and faster laser speed
- Sideport and corneal incisions were easily opened. Free floating capsulotomies in all eyes
- Postoperative visual outcomes and corneal edema were in line or better than standard of care
- An integrated FSL-PHACO system effectively and safely facilitates cataract surgery while improving workflow and time efficiency



THANK YOU