

ABSTRACT TITLE: Refractive surgical outcomes of cataract surgeons in training

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SESSION TYPE: Poster Session

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PRESENTATION START/END SESSION ABSTRACT START TIME: 11:00 AM **SESSION ABSTRACT END TIME:** 12:45 PM

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SESSION TITLE: Cataract Surgery II **SESSION DAY & DATE:** Monday, May 6, 2013 **SESSION START TIME:** 11:00 AM **SESSION END TIME:** 12:45 PM

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Study Group: ABSTRACT BODY:

Purpose: To determine the surgical refractive outcomes of cataract surgeons in early phases of surgical training.

Methods: A novel, freely available program (threeplus.org) was developed to aid in tracking individual surgical outcomes for quality assurance. This program, based on existing formulas found in the literature, automatically tracks the distance to target spherical refraction, residual post-operative cylinder, surgically induced astigmatism (SIA) in the axis of the wound, and type of implanted intraocular lens (IOL). Based on these variables, personalized formula constants are back-calculated for each implanted IOL type, and the most predictive IOL formula (Holladay 1, SRK/T, and Hoffer Q) for short (AL < 22.0 mm), normal (22.0 < AL < 26.0), and long eyes (AL > 26.0 mm) are also computed. This program was used to track beginning cataract surgeons (less than 50 primary cataract cases). User Group for Laser Interference Biometry (ULIB) values were used for all IOL constants. Mean and standard deviation (SD) were calculated using R.

Results: A total of 53 cataracts were tracked of two beginning surgeons using this program. The most common IOL implanted was Alcon SN60WF (37, 71.1 %). The number of "premium" IOLs implanted was 11 (21.1%), the most common being Alcon Toric lenses. The mean SIA was 0.07D (SD: 0.31D) in the axis of the wound. The mean spherical equivalent distance to target refraction and the residual post-operative manifest cylinder were -0.11D (SD: 0.31D) and 0.49D (SD: 0.33D), respectively. Hoffer Q, Holladay 1, and SRK/T were the most predictive in 38.8%, 18.3%, and 42.9% respectively of normal length eyes.

Conclusions: The refractive surgical outcomes of cataract surgeons in training were not different than published results. This study also describes a program that represents a novel, freely available tool for cataract surgeons to easily track quality assurance and refractive surgical outcomes in their own operations, which may be useful in resident education and institutional quality assurance.

(No Image Selected)

Commercial Relationship(s) Disclosure: Gokul Kumar: Commercial Relationship(s); Cogent14 Productions LLC (threeplus.org): Code P (Patent) Aaron Lee: Commercial Relationship(s); Cogent 14 Productions LLC (threeplus.org): Code P (Patent) Cecilia Lee: Commercial Relationship: Code N (No Commercial Relationship)

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