

received primary intraocular lens (IOL) implantation. Of the 60 children followed between 4-6 years of age with optotype visual acuity (VA) testing, corrected visual acuity was excellent ( $<20/40$ ) in 45% of better seeing eyes and 20% of worse-seeing eyes. 2% had poor acuity ( $>20/200$ ) in the better eye and 10% in the worse eye. Median best eye visual acuity was 20/50 (logMAR 0.40) ( $P = 0.84$ ) in both aphakic and pseudophakic children. Unplanned reoperation occurred in 29% of right eyes (including glaucoma surgery in 9%).

**Discussion:** Good visual outcomes were obtained in both eyes following bilateral infantile cataract surgery. With or without the inclusion of children who tested poorly due to associated neurologic disease, the VA of the worse seeing eye in these bilateral cases is better than VA in unilateral cases included in the IATS. The rates of reoperation and glaucoma are consistent with the published IATS data. Aphakia management did not affect visual acuity outcomes.

**Conclusions:** Visual acuity after bilateral cataract surgery in infants younger than 7 months is better than VA following unilateral cataract surgery, but adverse events were similar.

#### 012 Failure of methotrexate monotherapy and subsequent response to tumor necrosis factor inhibitors in pediatric noninfectious uveitis.

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**Introduction:** This study aimed to determine the rates of treatment failure with methotrexate (MTX) monotherapy and subsequent efficacy of anti-tumor necrosis factor (TNF) alpha inhibitors adalimumab (ADA) and infliximab (IFX) in refractory pediatric noninfectious uveitis.

**Methods:** The charts of patients evaluated with noninfectious uveitis between January 2013 and December 2017 were reviewed retrospectively. Data recorded included: demographic information, site and degree of uveitis, associated systemic conditions, systemic and topical therapy. Treatment failure was defined as steroid dependence with persistent or recurrent inflammation despite maximum dose for 3 months or longer.

**Results:** Seventy-three patients (male/female = 33/40) were included. Anterior uveitis (AU) was the most common presentation ( $n = 51$  total; juvenile idiopathic arthritis-associated  $n = 23$ , idiopathic  $n = 28$ ), followed by pars planitis ( $n = 13$ ) and panuveitis ( $n = 9$ ). Mean age at diagnosis was 7.6 years. Mean follow-up period was 76.5 months (range, 18-192). Overall treatment failure with MTX monotherapy was 83.5%. Of those who failed MTX monotherapy, 27 were controlled with ADA and 10 with IFX as the first additional treatment. Twenty one patients on ADA therapy were switched to IFX for persistent inflammation and 85.7% were controlled. Subgroup analysis for each type of uveitis was further performed.

**Discussion:** There is limited data on control of various pediatric uveitis subtypes with MTX monotherapy. This study suggests many patients with uveitis require TNF inhibitors for disease control.

**Conclusions:** MTX was effective as monotherapy in less than 50% of pediatric uveitis patients. Additional IFX and ADA were effective and safe treatment modalities to achieve steroid-free remission for pediatric uveitis.

#### 013 Evaluation of a computer-based facial dysmorphology analysis algorithm (Face2Gene) using standardized textbook photos.

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**Introduction:** Face2Gene (F2G) is a smart-phone based computerized facial dysmorphology analysis program that analyzes facial images

to provide differential diagnoses of possible syndromes. In this study, we tested the sensitivity and specificity of F2G using the images within two standard genetic textbooks.

**Methods:** Under standard lighting conditions, all facial images contained with the two textbooks were analyzed using F2G. Variables captured include color vs black/white photo, gender of the patient (if known), age of the patient (if known), disease categories, diagnosis as listed in the textbook, and whether the disease has ophthalmic involvement (as described in the textbook entries).

**Results:** A total of 353 facial images were analyzed. The top F2G diagnosis matched the book diagnosis in 150 (42.5%) entries, while it is included in the top three in 191 (54.1%) entries. 259 entries had ophthalmic involvement, and within this subgroup, the top F2G diagnosis matched the book diagnosis in 108 (49.4%) entries, while it is included in the top three in 140 (54.1%) entries. F2G is highly sensitive for craniosynostosis syndromes (point estimate [PE] 80.0%, 95% confidence interval [CI] 56.3 - 94.3%,  $P = 0.0118$ ) and syndrome with facial defects as major feature (PE 77.8%, 95% CI 52.4 - 93.6%,  $P = 0.0309$ ). F2G is highly specific for all categories (PE  $> 90\%$ , with  $P < 0.05$  for all).

**Discussion:** F2G is a highly specific tool for facial dysmorphology in all categories.

**Conclusions:** F2G may be a useful tool for pediatric ophthalmologists to rule out certain syndromes when evaluating a child with dysmorphic facial features.

#### 014 Pediatric ophthalmology documentation using electronic health records (EHRs): where does the data come from, and how often is it reviewed?

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**Introduction:** Because EHR use is time-consuming, pediatric ophthalmologists frequently adopt strategies such as copy-paste and templates, which create long, redundant documentation. This study uses data analytic methods to quantitatively assess the prevalence of imported content in progress notes, and the proportion of prior notes opened.

**Methods:** Two attending pediatric ophthalmologists were included. There were three components. (1) Progress note text from 10 new and 20 follow-up office visits were characterized as manually entered vs imported using EHR audit log tools (EpiCare; Epic, Verana, WI). (2) Thirty pairs of notes from serial follow-up encounters for the same patients were compared for similarity using computation tools (Workshare Compare, San Francisco, CA). (3) EHR audit logs from 1577 office visits were analyzed to identify the proportion of prior notes opened during each encounter ([R, www.R-project.org](http://www.R-project.org)).

**Results:** (1) On average, the majority of text words in new and follow-up progress notes was imported using sources such as copy-paste and templates (358/482 [74%] new, 464/524 [88%] follow-up). (2) On average, 647/947 [70%] text words in serial follow-up encounters were identical between notes. (3) On average, attending ophthalmologists reviewed  $3.3 \pm 6.1\%$  of prior notes at each encounter.

**Discussion:** Pediatric ophthalmologists may address these issues by collaborating in EHR system design, and in policy-making efforts to support regulations that promote documentation for clinical care rather than compliance.

**Conclusions:** EHR documentation in pediatric ophthalmology is heavily redundant and largely copied from outside sources, and few notes are being read during office encounters. These findings raise concerns about quality of clinical documentation.