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Course Title:
Orthokeratology for Pediatrics - Not Your Average GP Lens Fitting

Course Outline:

1. **What are the common misconceptions or deterring factors for practitioners to prescribe ortho-k for children?**
    - ***a. Knowledge gaps about ortho-k in ophthalmic practice***
        - i. OMDs - discourage or oppose ortho-k secondary to overnight wear habit (despite FDA approval)
        - ii. Misperceived risks of microbial keratitis (MK)
        - iii. ODs - hesitant about the use of ortho-k secondary to misinformed or biased attitude toward ortho-k
        - iv. Little educational exposure in OD curriculum
    - b. ***'Ortho-k lens fitting is difficult for patients and practitioners'***
        - i. Increased handling time by patients?
        - ii. Unpredictable clinical outcomes?
        - iii. Not revenue-driven?
    - ***c. 'Ortho-k is unsafe for children'***
        - i. Proven safe
        - ii. Estimated incidence of MK in children 13.9 per 10,000 patient-years (Bullimore & Johnson. 2020)
        - iii. Showed safer compared to overnight soft and hydrogels lens wear
        - iv. Contact lens hygiene and compliance is key

2. **What fitting principles and mindset should we adopt for orthokeratology to optimize clinical success?**
    - a. Patient selection criteria - *Vincent SJ, Cho P, Chan KY, Fadel D, Ghorbani-Mojarrad N, González-Méijome JM, Johnson L, Kang P, Michaud L, Simard P, Jones L. CLEAR - Orthokeratology. Cont Lens Anterior Eye. 2021 Apr;44(2):240-269.*
        - i. Early onset of age
        - ii. Key clinical considerations:
            1. Cycloplegic refractive error
            2. Keratometric reading
            3. Eccentricity
            4. Horizontoal visible iris diameter (HVID)
        - iii. Behavioral and cultural considerations
        - iv. Relative contraindications
            1. Astigmatic correction exceeds myopic correction
            2. Keratoconus or ocular surface comorbidities

3. Patients with little incentive or unrealistic expectation with ortho-k

3. **Understand the latest concepts and endeavors in optimizing ortho-k results for myopia management**
    a. High-order aberrations (HOA)
        i. It likely yields greater clinical benefits than previously thought for children
        ii. Positive correlation in halting axial length elongation
    b. Relationship between back optic zone diameter (BOZD) and Relative Peripheral Refraction (RPR)
        i. BOZD size matters?
        ii. Any other considerations?
            1. Relative peripheral refraction
            2. Impact of RPR-associated HOA
            3. Decentric optics for orthokeratology

4. **Understand key clinical benefits of ortho-k for myopia management for children using case studies**
    a. Efficacy in reducing dioptric and axial length progression
    b. Perspectives in addressing corneal toricity vs. refractive astigmatism
    c. Partial correction can still achieve ‘Need-to-Treat’ (NTT) benefits

5. Advocate to bring ortho-k to the mainstream for myopia management
        i. Ortho-k as a valuable, yet underutilized, RGP tool for myopia management
        ii. Help practitioners expand their clinical toolbox and tailor treatment approaches to better serve myopic children in need