NCC 'Beyond 2020' Paper Abstracts
Free paper sessions
Sunday, March 26, 2022 13:30 – 14:15
Netherlands, Veldhoven, de Koningshof, Baroniezaal
Organization Section: NCC/ BCLA
Moderator: Holly Lorentz & James Wolffsohn

Paper Number: 1
Presentation time: 13:30-13:35
High satisfaction by eye care practitioners with daily disposable contact lenses with smartsurface® technology
Timothy Grant, Angela Chang
Purpose: Verofilcon A (PRECISION1®) daily disposable contact lenses (CLs) with SMARTSURFACE® technology, which have an overall water content of 51% with >80% surface moisture, were developed for optical correction of refractive error in non-diseased eyes. Eye care practitioners (ECPs) in Asia were surveyed about their satisfaction with these lenses.
Method: ECPs in Hong Kong, Malaysia, Singapore, South Korea, Taiwan, and Thailand completed two surveys, at baseline prior to fitting verofilcon A CLs and a second time after their patients completed 2 weeks of wear. Survey outcomes were evaluated using 5-point Likert scales (1=strongly agree; 2=agree; 3=neither agree nor disagree; 4=disagree; 5=strongly disagree).
Results: Following 2 weeks of patient wear, 116 ECPs completed the surveys. High percentages agreed or strongly agreed these lenses may motivate their patients to return for annual eye examinations and updated prescriptions (79%); these lenses were easy to fit to new wearers (85%); these lenses drove high patient satisfaction (87%); they would recommend these lenses to their colleagues for patients with busy lifestyles (88%); they would trust the performance of these lenses for their patients with on-the-go lifestyles (95%); and they would recommend these lenses to their patients (96%). TURF analysis showed the strongest combination of attributes for ECPs (strongly agree) included easy fitting to new wearers; recommendation of these lenses to their patients; and trusting the performance of these lenses for their patients with on-the-go lifestyles. Of these ECPs 45% strongly agreed with at least one of these attributes.
Conclusions: ECPs in Asia reported verofilcon A lenses were easy to fit and they would recommend these lenses to their patients. ECPs also found these lenses may influence patient interest in wearing lenses and may motivate patients to return for annual eye examinations.
Research funding received: Sponsored by Alcon

Paper Number: 2
Presentation time: 13:35-13:40
Encouraging young adults into contact lens wear
Zoe Bull, Marie Chanu, Jamie Lyle
Purpose: With 60% of contact lens (CL) wearers starting under 25 years, the opportunity with young adults to increase CL usage is high. This research sought to learn about young adults' perceptions towards CL's and how to increase desire to wear.
Method: An online quantitative survey was conducted by an independent research company Verve (2021) with consumers who need vision correction aged 16-24 years across Germany, UK, Spain, Nordics (Sweden/Norway/Finland/Denmark) and Poland. CL and spectacle wearers were surveyed.
Results: 3613 consumers completed the survey; 17% 16-17yrs, 42% 18-21yrs, 20% 22-24yrs; Female:Male (75:25). Across Europe 17% wear CL's only and 24% wear both spectacles and CL's. Average age of first wear is 16 years old. Young adults are decision makers when it comes to CL purchase, 64% paying for their own CL's (Germany 73%, Spain 61%) and for those not paying, 57% make the decision. Key CL usage occasions are sports/physical

activities (80%), special occasions (80%), with sunglasses (74%) and socialising with friends/family (63%). 59% 16-24 year olds who wear both CL's and spectacles prefer to wear their CL's (69% Poland, 53% Germany). Spectacle only consumers cited barriers to wearing CL's including, not liking to put something in their eye (38%) and thinking they would be uncomfortable (32%).
Conclusions: While CL wear with young adults is higher than average population across Europe, there is an opportunity to increase both spectacle and CL dual wear given the preference for CL's over spectacles, especially in Poland and Spain. Limited differences were seen across the region in respect of triggers and barriers to CL usage hence, to encourage new CL fits with this group, it is important to consider relevant occasion/lifestyle-based wearing benefits and to overcome the barriers to wear by demystifying the perceived lack of comfort and concern of putting something on their eye.
Research funding received: Survey funded by CooperVision

Paper Number: 3
Presentation time: 13:40-13:45
Subjective Performance of Verofilcon A Daily Disposable Soft Contact Lens After 16 Hours of Wear
Charles Otero, Lakshman Subbaraman, Colton Heinrich, Gina Wesley, Bradley Giedd
Purpose: Previous studies have determined subjective ratings of comfort and vision during contact lens wear for only up to 12 hours. The purpose of this study was to evaluate the subjective performance of a novel, commercial daily disposable silicone hydrogel soft contact lens (verofilcon A) after 16 hours of wear.
Method: In this prospective, multicenter, pilot clinical study, successful soft contact lens wearers were fitted with verofilcon A lenses on a daily wear modality (n = 26 completed). A day before their in-office visit (8 [-0/+3] days after screening), participants completed subjective ratings of comfort, vision, and overall impression using Visual Analog Scales (VAS; 0–100 point) at different time points including after 12 and 16 hours of lens wear. Furthermore, Likert questionnaires (5-point scale) were completed during in-office visit ~10 hours after lens insertion.
Results: After 16 hours of wear, VAS ratings for comfort, vision, and overall impression were 74.3 (21.9), 82.6 (16.6) and 80.1 (17.4) mean (SD), respectively. On Likert questionnaires, 92% of the participants agreed/strongly agreed that "My lenses feel fresh right now"; 85% of participants agreed/strongly agreed "My lenses felt comfortable all day"; 92%, agreed/strongly agreed "My vision was clear all day today"; 92%, agreed/strongly agreed "It was easy to put my lenses in today"; and 73%, agreed/strongly agreed "My lenses feel as comfortable now as they did when I first put them in today". A high percentage of participants "agreed" or "strongly agreed" for several other Likert questions pertaining to lens comfort, vision and handling.
Conclusions: Verofilcon A contact lens wearers provided high subjective ratings even after long hours of wear when assessed using VAS and Likert questionnaires.
Research funding received: Sponsored by Alcon

Paper Number: 4
Presentation time: 13:45-13:50
Clinical performance of spherical vs. toric soft contact lenses in low and moderate astigmats
Aftab Mirza, José Vega, Gary Orsborn, Philip Morgan
Purpose: To evaluate the performance of spherical and toric soft contact lenses in low and moderate astigmats.
Method: Subjects with a cylindrical component of their refractive error between -0.75DC and -1.50DC in both eyes were fitted with Comfilcon A spherical and toric lenses in random sequence. Post-fitting, the following parameters were assessed: lens fit

(biomicroscope), visual acuity (monocular and binocular distance logMAR at high and low contrast), subjective comfort, and subjective vision during tasks at distance, intermediate and near (all 0-100 scales).
Results: Twenty seven subjects (14 females, 13 males, age 28.7 ± 7.8 years) completed the study. All lens fits were acceptable and 93% of toric lenses settled within 5° of the optimum location. Visual acuity scores were 0.6 to 1.1 lines better with the toric lens (all $p < 0.001$). Subjective vision scores in favour of the toric lens became more marked as the task of interest moved from near (difference of 0.2 units, $p = 0.93$) to intermediate (2.6 units, $p = 0.39$) to distance (11.8 units, $p = 0.002$). Subjective vision stability tended to favour the toric lens at intermediate and distance (differences of 4.4 units, $p = 0.07$ and 5.5 units, $p = 0.05$ respectively). Comfort scores were similar (sphere 79.8 ± 19.9 and toric 81.6 ± 16.5 units, $p = 0.68$).
Conclusions: The clinically meaningful superiority in visual acuity with the toric lens compared to the sphere suggests that eye care professionals should prescribe low astigmats with this lens type for their patients to enjoy full vision correction. Subjective vision differences were most marked for distance tasks. Historically, vision instability and reduced comfort has been associated with soft toric lenses; this was not the case here and may indicate that such observations are design related and not present with some modern toric designs.
Research funding received: This work was funded by CooperVision Inc.

Paper Number: 5
Presentation time: 13:50-13:55
Wearer experience and eye care professional acceptance with a new 1 day multifocal contact lens.
Marcella McParland, Daniel Comoroda, Anna Sulley
Purpose: While many multifocal contact lens (MFCL) options are available, and studies report high fit success rates and overall satisfaction, eye care professionals (ECPs) have reservations about fitting them. A multicentre assessment was conducted to assess wearer experience and ECP acceptance with a 1 day MFCL when used in clinical practice.
Method: The observational assessment was conducted at 48 US sites; ECPs fitted MyDay multifocal (MyDMF) (stenfilcon A, CooperVision) to new (NW) and habitual (HW) CL wearers as per routine procedure. Overall satisfaction, comfort and vision were evaluated with wearer surveys during fitting and 1-2 week follow-up; ECP surveys were conducted pre- and post-assessment. Data were collated online and analyzed by an independent market research agency.
Results: A total of 372 wearers (73 NW, 299 HW) were fit with MyDMF, mean age 51.9 years (±7.36); 77% female. Spectacle refraction: mean -1.84DS (-11.50 to +4.75DS), mean cylinder -0.37DC; add powers +0.75 to +3.00DS.
85% were successfully fit with first pair of MyDMF dispensed. 98% ECPs agreed MyDMF were fast and easy to fit, and the fitting guide was easy to use; 93% agreed the lens met/exceeded expectations for high fit success rate.
At follow up, 87% wearers were satisfied with overall vision performance with no significant differences across add powers. 93% wearers were satisfied with overall comfort, with no differences between NW and HW at follow-up. Overall satisfaction was significantly better versus habitual CLs ($p<0.05$).
93% ECPs agreed that overall vision performance met/exceeded expectations.
Conclusions: This survey provides real world feedback and demonstrates MyDMF success and wearer satisfaction for vision, comfort and overall, with results comparable to previously reported clinical trials. MyDMF fitting was fast and the fitting guide easy to follow. This should provide confidence to ECPs in prescribing MyDay multifocal to their presbyopes, whether new or habitual

wearers, and irrespective of add power.
Research funding received: This In Market Assessment was funded by CooperVision Ltd.

Paper Number: 6
Presentation time: 13:55-14:00
Visual Analog Scale Results of a New Silicone Hydrogel Material (Lehfilcon A)
Holly Lorentz, Ravaughn Williams, Carolina Kunnen, Bradley Hines, Bradley Giedd, Wilson Movic
Purpose: The clinical performance of a new silicone hydrogel (SiHy) material lehfilcon A, with a core lens material containing 55% water that gradually transitions to nearly 100% water at the outer surface, was evaluated for lens cleanliness, overall impression and comfort using a Visual Analog Scale (VAS).
Method: Sixty-six subjects were fitted with a new SiHy material in this prospective, multi-center, bilateral, 30 day (±2 days) dispense study. Habitual spherical soft contact lens wearers (≥ 18 years) with range of sphere power from -1.00D to -6.00D and a manifest cylinder of ≤ -0.75D and best corrected visual acuity of 20/25 or better in each eye were included in the study. 0-100 VAS scales (originally designed at Eurolens Research) were used to evaluate lens cleanliness, overall impression, and comfort. The scales were anchored for lens cleanliness and overall impression: 0 = Extremely Poor; 20 = Very Poor; 40 = Poor; 60 = Good; 80 = Very Good; 100 = Excellent, and for Comfort: 0 = Causes Pain; 20 = Very Uncomfortable; 40 = Slightly Uncomfortable; 60 = Comfortable; 80 = Very Comfortable; 100 = Excellent.
Results: Mean (SD) lens cleanliness was 92.8 (±9.1) on Day 1 and 87.4 (±13.6) on Day 30 (rated very good to excellent). Overall impression was 87.5 (±16.5) on Day 1 and 82.4 (±17.9) on Day 30 (rated very good to excellent). Comfort was 87.4 (±14.7) on Day 1 and 82.0 (±16.5) on Day 30 (rated very comfortable to excellent).
Conclusions: The clinical performance of this new SiHy lens material lehfilcon A was consistent from Day 1 to Day 30 for lens cleanliness, overall impression, and comfort.
Research funding received: This study was funded by Alcon.

Paper Number: 7
Presentation time: 14:00-14:05
Clinical Performance Results of the New Lehfilcon A Silicone Hydrogel Contact Lens)
Carolina Kunnen, Brenda Edwards, Bradley Giedd, Wilson Movic, Bradley Hines, Ravaughn Williams
Purpose: This study evaluated the clinical performance of a new silicone hydrogel (SiHy) material (lehfilcon A), with a core lens material containing 55% water that gradually transitions to nearly 100% water at the outer surface.
Method: Sixty-six subjects were fitted with a new SiHy material in this prospective, multi-center, bilateral, 30 day (±2 days) dispense study. Habitual spherical soft contact lens wearers (≥ 18 years) with range of sphere power from -1.00D to -6.00D and a manifest cylinder of ≤ -0.75D and best corrected visual acuity of 20/25 or better in each eye were included in the study. Subjective agreement questions were asked on Day 1 and Day 30 and subjective lifestyle questions over the past 30 days using a 5-point Likert scale (1=strongly agree; 5=strongly disagree).
Results: Percentage of agreement (strongly agreed or agreed; %) on Day 30 for the new SiHy material wearers on the following questions: 'These lenses were hassle free' 87.7% agreement. 'These lenses did not distract me from living my life to the fullest' 86.2% agreement. 'It was easy to remove my lenses' 89.2% agreement. Percentage of agreement (strongly agreed or agreed; %) on Day 1 and Day 30 for the new SiHy material wearers on the following questions: 'My lenses felt comfortable' 93.8% on Day 1, and 89.2% on Day30. 'My vision was clear' 93.8% on Day 1, and 93.8% on Day 30. 'It

was easy to put my lenses in' 95.3% on Day 1, and 96.9% on Day 30.
Conclusions: Consistent clinical performance from Day 1 to Day 30 was observed for comfort, vision, and ease of use for this new lehfilcon A SiHy lens material.
Research funding received: This study was funded by Alcon.

Paper Number: 8
Presentation time: 14:05-14:10
Survey of U.S. Eye Care Professionals and Patient Satisfaction with Verofilcon A Daily Disposable Silicone Hydrogel Contact Lenses for Astigmatism
Sean Powell, Inma Perez-Gomez
Purpose: The commercial success of new contact lenses (CL) depends on the opinion of eye care professionals (ECPs), including their experience fitting these CLs, and on patient satisfaction. A novel daily disposable toric CL, verofilcon A for astigmastism with SMARTSURFACE® technology, was recently introduced. ECPs and patients were surveyed regarding their real world experience and satisfaction with these CLs.
Method: Surveys were distributed to ECPs in the United States and to current CL wearers enrolled by these ECPs. Patients' demographic characteristics were recorded, followed by fitting with verofilcon A for astigmatism CLs. After wearing these CLs for 10-14 days, patients completed follow-up surveys to evaluate their wearing experience. ECPs also completed follow-up surveys to evaluate their experience fitting these lenses and their recommendations regarding their use, with all parameters assessed using 5-point Likert scales (1=strongly agree; 5=strongly disagree).
Results: The 104 patients who completed both surveys included 71 (68%) women and 85 (82%) aged ≤45 years. Of these subjects, ≥90% agreed/strongly agreed that verofilcon A CLs for astigmatism were easily placed on their eyes; supported their active lifestyle; were easy to handle; could be worn all day; provided clear distance vision when engaged in activities such as driving, biking, watching television and looking at digital devices; and would recommend these lenses to friends and family. Of the 13 ECPs who completed both surveys, >90% agreed/strongly agreed that verofilcon A CLs for astigmatism were easy to fit; would recommend these lenses to colleagues for astigmatic patients; trust these lenses for astigmatic patients with long days and active lifestyles, making them their toric lens of choice for these patients; drive high patient satisfaction; and motivate patients to renew their prescriptions annually.
Conclusions: ECPs and CL wearers expressed high levels of satisfaction with verofilcon A CLs for astigmatism, reporting excellent handling, comfort, vision and ease of fit.
Research funding received: N/A

Paper Number: 9
Presentation time: 14:10-14:15
Patient and ECP satisfaction with new daily disposable toric contact lenses with SMARTSURFACE® technology
Inma Perez-Gomez, Roberto Valente, Harald Vonbun
Purpose: Verofilcon A (PRECISION1®) daily disposable toric contact lenses (CLs) for astigmatism (P1fA) with SMARTSURFACE® technology were developed to correct refractive error and astigmatism. Lens satisfaction was assessed by CL wearers (CLWs) and their eye care professionals (ECPs) in four European countries.
Method: Surveys were completed by current CLWs and their ECPs. Baseline patient data and habitual lens information were collected during ECP visits or online, and patients were fitted with P1fA. After wearing these CLs for 2 weeks, patients completed follow-up surveys on their wearing experience. ECPs also completed surveys before and after the trial fitting period. Results were assessed using 5-point Likert scales (1=strongly agree; 5=strongly disagree).
Results: Surveys were completed by 245

CLWs (mean age, 35 yrs; 64% women) and 50 ECPs. Of the CLWs, ≥85% agreed/strongly agreed that P1fAs were easy to place on their eyes (94%); provided clear distance vision during activities such as driving, biking, and watching TV (90%); supported their active lifestyles (90%); enabled them to focus on the moments that mattered, not their CLs (89%); could be worn all day long (87%); were easy to handle (86%); and provided long-lasting comfort (85%). TURF analysis found that the strongest combination of CL attributes (strongly agree) were recommendations to friends and family; wearing all day; clear distance vision during activities such as driving, biking, watching TV; and long-lasting comfort. After fitting P1fAs, 98% of ECPs agreed/strongly agreed that they trust P1fA performance for astigmatic patients with long days and on-the-go lifestyles; and that P1fAs were easy as easy to fit as spherical lenses (92%); and would recommend them to colleagues for astigmatic patients needing long-lasting vision and comfort for busy lifestyles (94%).

Conclusions: Both CLWs and ECPs expressed high levels of acceptance and satisfaction with these new verofilcon A toric CLs.

Research funding received: N/A

End of session