

NCC 'FUTURE GENERATION 2024' PAPER Abstracts
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PAPER Abstracts

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Influence of Multifocal Contact Lens Design on Patient Acceptance

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Purpose: Compare clinical acceptance (vision satisfaction, comfort and overall preference) of two multifocal contact lenses in a multifocal wearing population.

Method: Prospective, randomised, crossover, double-masked study one-week duration. Habitual multifocal contact lens wearers, evenly split between emerging (add +0.75D to +1.25D), established (+1.50D to +1.75D) and advanced (\geq +2.00D) presbyopes were fitted with clariti® 1 day multifocal with Binocular Progressive System™ (somofilcon A, CooperVision [c1dMF]) and 1-DAY ACUVUE® MOIST MULTIFOCAL (etafilcon A, Johnson and Johnson Vision [1DAMMF]) as per their fitting guides. Overall vision satisfaction (OVS) and comfort (100-point VAS) and preference (forced choice scale) were recorded after one-week of wear.

Results: 90 presbyopes (64 female, 26 male, age 53.7±6.4 years) completed the study. Results showed: i. similarly high-level OVS (>80 points) with trend towards higher satisfaction with c1dMF (mean: 83.8 vs. 80.9; p=0.074, 95%CI -0.3 to +6.1); ii. No difference at far (mean: 82.9 vs. 80.1; p=0.140; 95%CI -0.9 to +6.5), but higher OVS at intermediate (mean: 87.4 vs. 83.9; p=0.024 95%CI +0.5 to +6.5) and near (mean: 84.4 vs. 79.1; p=0.014 95%CI +1.1 to +9.5) with c1dMF; iii. For individual near additions, large differences in favor of c1dMF: mid-

addition far (mean: 83.5 vs. 76.1; p=0.018), high-addition intermediate (mean: 87.5 vs. 80.9; p=0.030) and near (mean: 85.4 vs. 75.0; p=0.020); iv. Similar comfort with both contact lenses (mean: 88.1 vs. 85.7; p = 0.214); v. Trended towards greater preference for c1dMF (57.8% vs. 42.2%; p =0.053).

Conclusions: Vision satisfaction with two multifocal contact lenses revealed a design effect. OVS trended to greater performance with c1dMF than with 1DAMMF, with significant distance specific OVS differences in medium and high addition groups in favor of c1dMF. In practice, alternative multifocal designs should be tried in the event of poor OVS or acceptance of the initially selected design.

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