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PAPER Abstracts

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**Crossover trial of a new one-day
disposable multifocal contact lens:
preliminary report**

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Purpose: Hoya one-day multifocal (HOM) is a new contact lens for presbyopia with the following characteristics: silicone-hydrogel, 48% water content, Dk140, UVA/B-blocking, handling tint, centre-near multifocal design. The purpose is to compare this in a non-inferiority crossover trial with Alcon Dailies Total 1 multifocal (DTM).

Method: Sixty participants (20 in London, 20 in Milan, 20 in Aarhus) underwent baseline testing and then wore each lens type for 2 weeks. Preliminary analyses are presented of key outcome variables (lens preference, VF-14 questionnaire, binocular visual acuity [VA] at distance and near, stereoacuity, speed of reading with Wilkins Rate of Reading Test [WRRT]) and measurements relevant to dry eye.

Results: At the end of the trial, 23 participants preferred HOM and 31 DTM, with 6 unable to choose. Of those who expressed a preference, the proportion preferring each type did not differ significantly from chance (sign test, $p=0.34$). At the end of each wearing period, the proportion who were prepared to buy each type was similar (HOM, 27/60; DTM 30/60), as were gradings of the ease of handling with each lens type ($p=0.28$). DTM gave slightly

better (less than one line difference) median distance VA ($p=0.004$). There were no significant differences between the lens types in near VA ($p>0.2$), near stereoacuity ($p=0.18$), WRRT ($p=0.26$), and VF-14 visual symptom questionnaire ($p=0.53$). Participants with higher (worse) baseline scores for lid redness and corneal staining were more likely to prefer DTM ($p<0.03$). Conversely, participants with scores more suggestive of dry eye (higher OSDI and Pult Meibography scores and lower FBUT) were more likely to prefer HOM ($p<0.004$). Participants with larger photopic pupil sizes were more likely to prefer HOM ($p=0.009$).

Conclusions: These preliminary results indicate that lens preference is influenced by patient parameters. Further analyses of extensive data from daily diaries are underway.

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