



Title: SCOPE 2025: Update on Scleral Lens Prescription and Management Practices

Author: Mayo Clinic, Rochester, MN

Affiliation: Mayo Clinic, Rochester, MN

Abstract:

Introduction/Purpose: To report on current trends in scleral lens prescription and management trends in 2025.

Methods

The Scleral Lenses in Current Ophthalmic Practice Evaluation (SCOPE) study group designed and distributed an online survey to scleral lens fitters through direct e-mail invitations, electronic newsletters, and social media from June-October 2025. Data was collected using REDCap. Descriptive statistics are reported.

Results

A total of 892 individuals responded to the survey, with 739 reporting completion of at least 5 scleral lens fits. An estimated 462,272 scleral lens fits had been completed by survey participants. Lens diameter was distributed as follows: $37.6 \pm 33\%$ (mean \pm SD) of lenses fit were less than 16 mm in diameter, while $62.5 \pm 33\%$ were 16 mm in diameter or larger. Landing zone design was distributed as follows: $27.2 \pm 28\%$ featured spherical landing zones, $49.2 \pm 30\%$ featured toric or bitangential landing zones, $16.8 \pm 21\%$ featured quadrant-specific landing zones, and $6.8 \pm 17\%$ featured image- or impression-based landing zones. The mean number of fitting sets utilized by each participant was 3.8 ± 10 . Of 651 participants, 44.4% had access to imaging technology for custom scleral lens design and 19.8% had access to impression-based lenses. Among participants with access to advanced fitting technology, scleral lens fitting was based upon diagnostic lenses in $65.7 \pm 34\%$ of fits, while image-based lenses were used $28.6 \pm 33\%$ of the time and impression-based lenses were used $6 \pm 15\%$ of the time. Hydrogen peroxide care products were the most frequently prescribed for disinfection (48%) with multipurpose solutions recommended by 39% of participants. 41.3% of participants recommended a separate daily cleaner. Non-preserved 0.9% inhalation sodium chloride solution was the most frequently recommended filling solution (29%) followed by single-use vials of non-preserved saline specifically designed for use with scleral lenses (25%) and non-preserved saline for general use with contact lenses (21%). Only 4% of participants ever recommended the use of tap water for rinsing, cleaning, or storing lenses.



Conclusion

A majority of scleral lenses prescribed by participants in this study were at least 16 mm in diameter. Lens designs featuring toric or bitangential landing zones were prescribed for nearly 50% of patients represented in this study. Most participants do not currently have access to image- or impression-based lens designs. Even among those who do have access to advanced fitting technology, an estimated 2/3 of their patients are fit using diagnostic lenses. Hydrogen peroxide and multipurpose disinfection solutions are recommended most frequently, and most participants recommend some form of non-preserved saline delivered in single-use vials for lens rinsing and filling.