

Contact Lens Update

CLINICAL INSIGHTS BASED IN CURRENT RESEARCH

A study of contact lens compliance in a non-clinical setting

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Rueff EM, Wolfe J, et al. A study of contact lens compliance in a non-clinical setting. Cont Lens Anterior Eye 2019; 42;5: 557-561.

The featured article on soft contact lens compliance provides valuable insights for clinicians on patients' perspectives of lens wear and instructions received for aftercare. In this questionnaire-based paper, 297 soft contact lens wearers completed a survey about contact lens replacement, overnight contact lens wear and contact lens case replacement habits. Firstly, the article strongly concludes that daily disposable soft contact lens wearers are likely the most compliant with respect to replacement times, compared to patients using 2-week and monthly replacement modalities. The study also indicates that non-compliant patients with any lens wear modality are more likely to be non-compliant with overnight wear, which increases the risk of various adverse events.

The major outcomes of the study and their implementation in practice are discussed in this summary.

1) Compliance and lens wear modalities

Although the majority of soft lens wearers perceive themselves as being compliant with their replacement of lenses and hygiene practices, the literature has clearly indicated a varying degree of non-compliance with respect to lens and case replacement, aspects of hygiene related to both lenses and storage cases and sleeping habits. The implications of contact lens non-compliance include the risk of development of adverse events, poorer visual satisfaction, and patient dissatisfaction, leading to patient dropout.

In contact lens practice, patient compliance and satisfaction can be influenced by how the eye care practitioner and their practice team communicates with each patient. It is important to routinely check patients' understanding of lens and case care and replacement, as often discrepancies remain between what was instructed and what a patient understood. The recent BCLA CLEAR consensus report also suggests that provision of timely reminders and written instructions to patients can improve contact lens compliance and potentially avoid patient dropout.

The survey in the featured study indicates that daily disposable contact lens wearers are the most compliant with lens replacement compared to both monthly disposable and two-week replacement modalities. Approximately 88% of the survey participants with daily disposable lenses replaced their lenses on time, compared to 61% of the monthly replacement lens wearers. This study also found that the majority (51%) of the two-week replacement wearers often stretch lens replacement beyond the manufacturer recommended time. This is a common pattern seen with two-week replacement wearers and is in strong agreement with various earlier reports from Canada and United States. A series of reports by Kathy Dumbleton and colleagues¹⁻⁵ stipulated that patients are generally more compliant with daily disposables than 2-week replacement and overall non-compliance was highest among

2-week replacement wearers.

What does it mean in practice? It is important to be clear, and continually educate patients about correct lens replacement with all types of replacement frequency, and potentially consider paying special attention to those in 2-week schedules to ensure they have a good system to remind them when to change the lens.

The survey also determined patients' perspectives of eye care practitioners' lens prescription patterns. All the daily disposable lens wearers were provided with accurate lens replacement information and nearly all monthly replacement wearers (94%) had correct lens replacement information. However, patients in 2-week modalities were prescribed 2-week replacement only 53% of the time. This is in agreement with previous reports, that eye care practitioners in Canada and United States may opt to prescribe 2-week modalities for longer than two-week replacement.^{5, 6}

What does it mean for practice? This means replacement schedule recommendations must be adequately communicated with patients, and should be double-checked to confirm understanding both at the initial fit and any subsequent aftercare check. Lens replacement, brand worn, care system used and overall compliance to wear and disposal schedules must be reviewed at every contact lens check as these are crucial to maintaining patients' eye health, hence maximising patient comfort and minimising dropout.

2) Compliance and sleeping habits

Overnight sleeping with lenses is associated with an increased risk of adverse events, including inflammatory reactions such as contact lens associated red eye and infective conditions such as microbial keratitis. The survey established an interesting finding that regardless of lens replacement frequency, all patients were equally likely to be non-compliant in sleeping with their lenses. Approximately 15% of daily disposable patients slept in their lenses occasionally, a surprising finding given that daily disposable lenses are intended to be disposed of at the end of a single day of wear.

What does it mean for practice? Appropriate and regular education of contact lens wearers is paramount in maintaining compliance with removal of lenses prior to sleep. Eye care practitioners need to educate all lens wearers, detailing the risks of overnight wear to both daily disposable and reusable lens wearers.

3) Compliance with lens case hygiene & replacement

The study found non-compliance with lens case replacement is high. More than 70% of the patients were unsure of the proper lens case replacement schedule. More than 20% and 10% of patients replaced cases after 6 months and 1 year respectively. Given that lens case contamination is directly linked with microbial-related adverse events, appropriate patient education is imperative to help reduce the risk of adverse events.

What does it mean for practice? In addition to clear advice on correct case cleaning procedures, adequate time should be spent educating each contact lens wearer about the importance of timely replacement of their lens case. Replacement of lens cases every 3 months (or as advised by the case manufacturer) is important to help keep adverse events at bay. Non-compliance is unlikely to be driven by patient demographics or lens replacement modalities, meaning the eye care practitioner plays a crucial role during every aftercare to help drive patient compliance in this area.

Take-home messages

- Daily disposable lenses have seen significant growth in recent years. Patients wearing daily disposables are more likely to be compliant with replacement of their lenses compared to other modalities.

- Two-week replacement wearers are the most non-compliant with the replacement of lenses.
- Daily disposable lenses could be a better option to help reduce the risk of adverse events.
- Lens case replacement compliance is not related to lens replacement non-compliance
- It is very important to provide clear instructions for lens replacement and aftercare, check their understanding at every aftercare visit and supply written material for wearers to refer to at home.

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